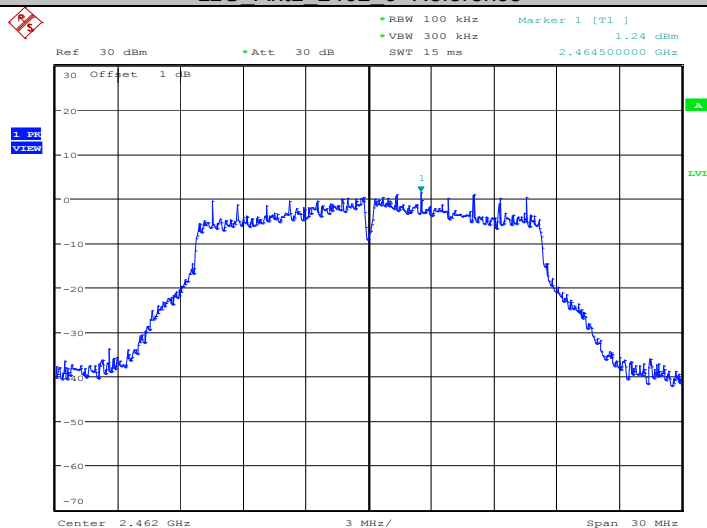


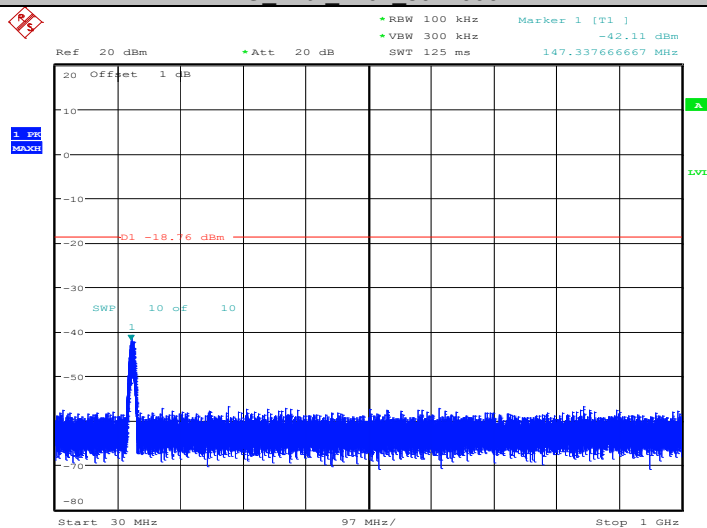


11G Ant1 2462 0~Reference



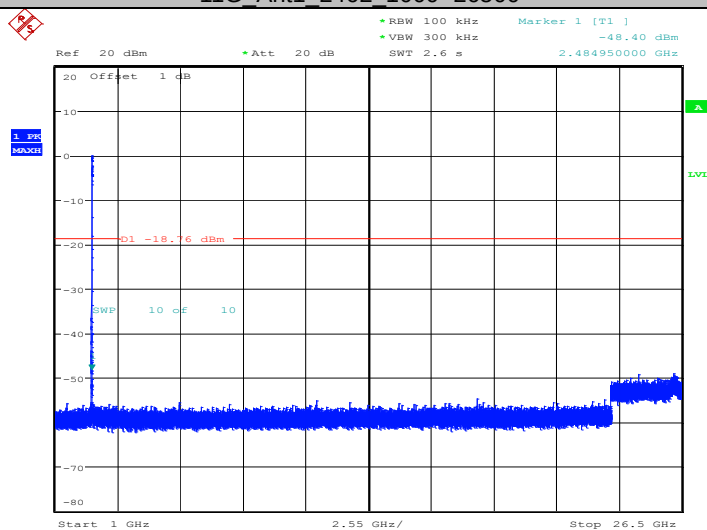
Date: 27.SEP.2020 11:51:04

11G Ant1 2462 30~1000



Date: 27.SEP.2020 11:51:15

11G Ant1 2462 1000~26500



Date: 27.SEP.2020 11:52:06

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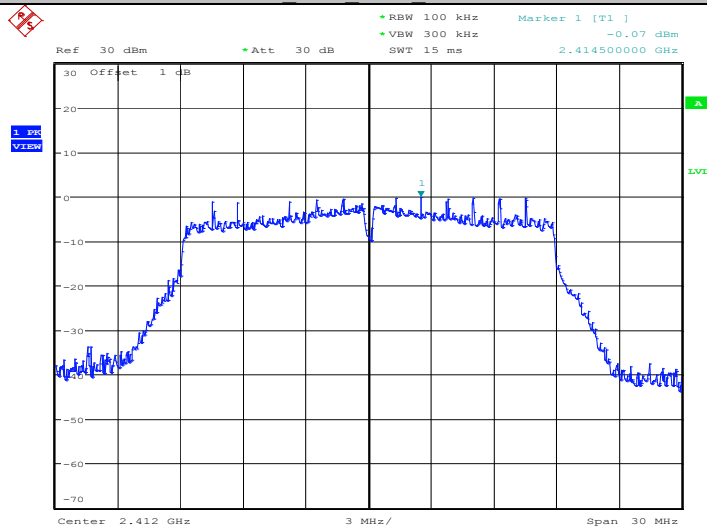
Fax: (86)755-27521011

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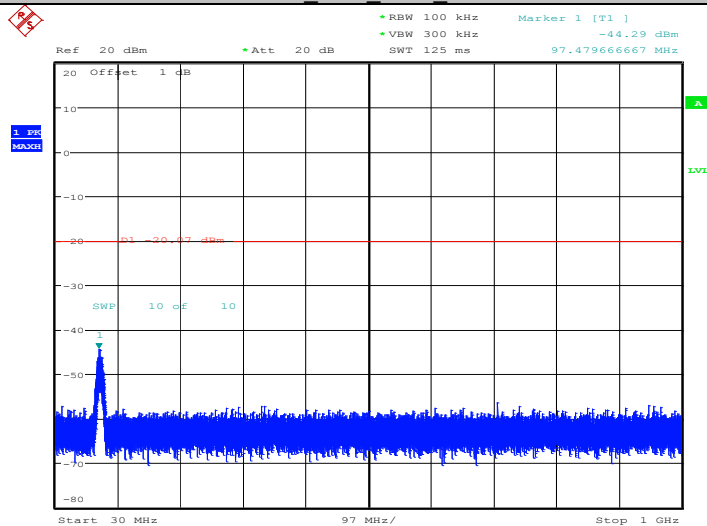


11N20SISO Ant1 2412 0~Reference



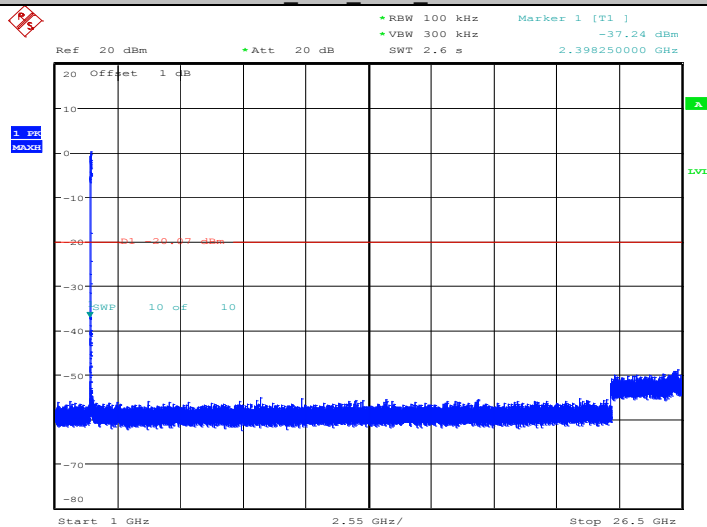
Date: 27.SEP.2020 11:57:12

11N20SISO Ant1 2412 30~1000



Date: 27.SEP.2020 11:57:23

11N20SISO Ant1 2412 1000~26500



Date: 27.SEP.2020 11:58:15

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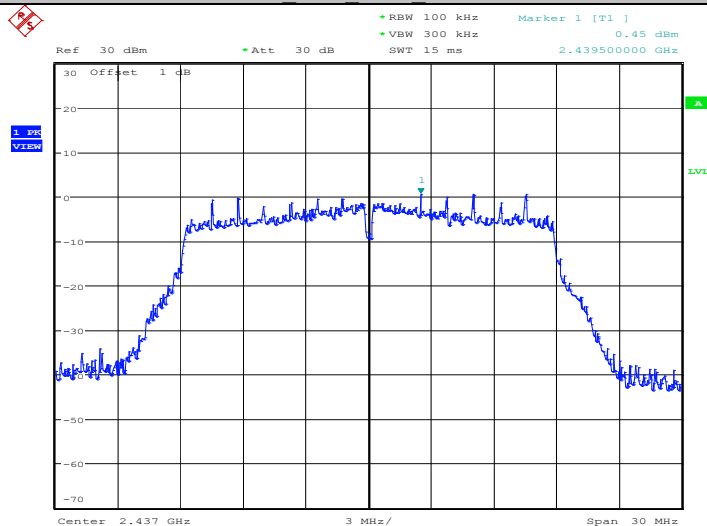
Fax: (86)755-27521011

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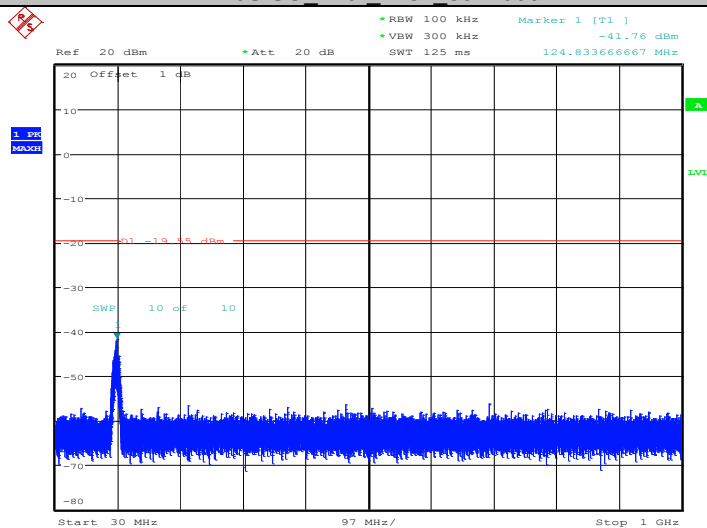


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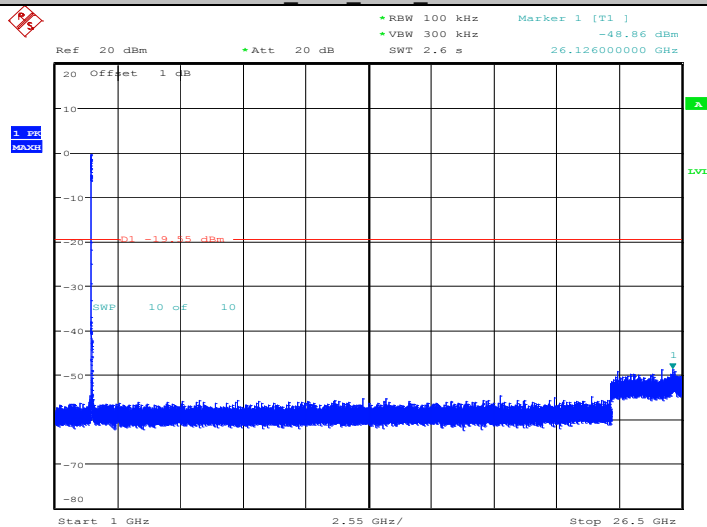
Date: 27.SEP.2020 12:01:31

11N20SISO Ant1 2437 30~1000



Date: 27.SEP.2020 12:01:42

11N20SISO Ant1 2437 1000~26500



Date: 27.SEP.2020 12:02:33

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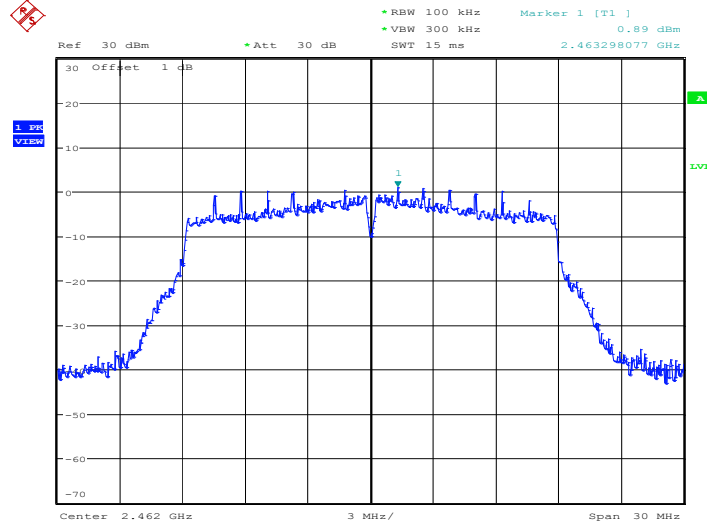
Fax: (86)755-27521011

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For anti-fake verification, please visit the official website of Certification and Accreditation Administration of the People's Republic of China : yz.cnca.cn

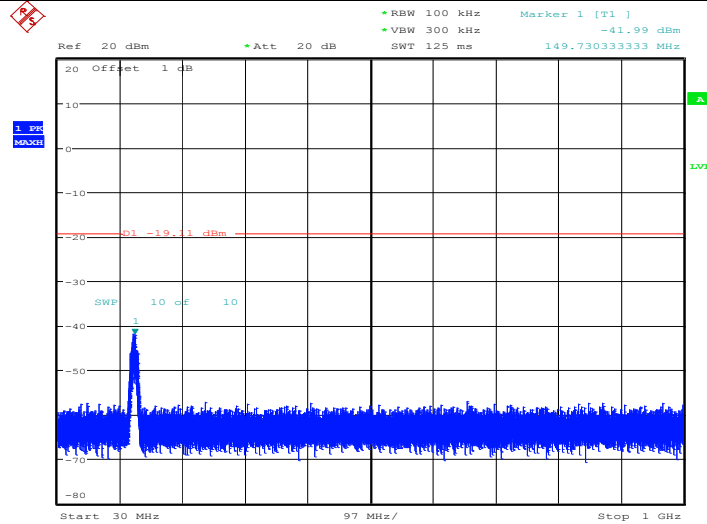


11N20SISO Ant1 2462 0~Reference



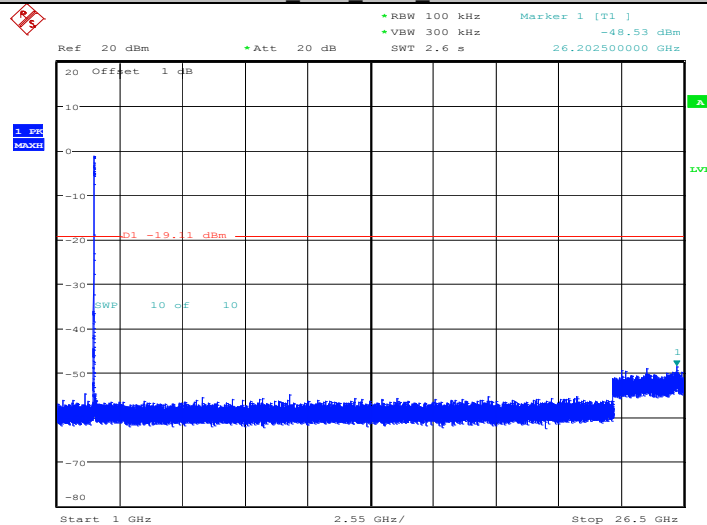
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11N20SISO Ant1 2462 30~1000



Date: 27.SEP.2020 12:07:51

11N20SISO Ant1 2462 1000~26500



Date: 27.SEP.2020 12:08:42

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3.3. Band Edge Emissions

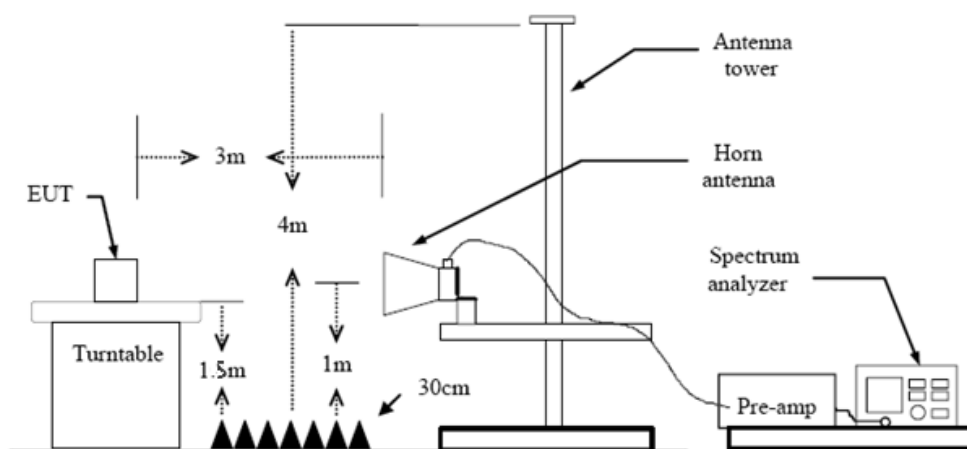
Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (d)/ RSS 247 5.5:

Restricted Frequency Band (MHz)	(dBuV/m)(at 3m)	
	Peak	Average
2310 ~2390	74	54
2483.5 ~2500	74	54

Conducted band edge limit: The highest point of the operating frequency waveform down 20dB

Test Configuration



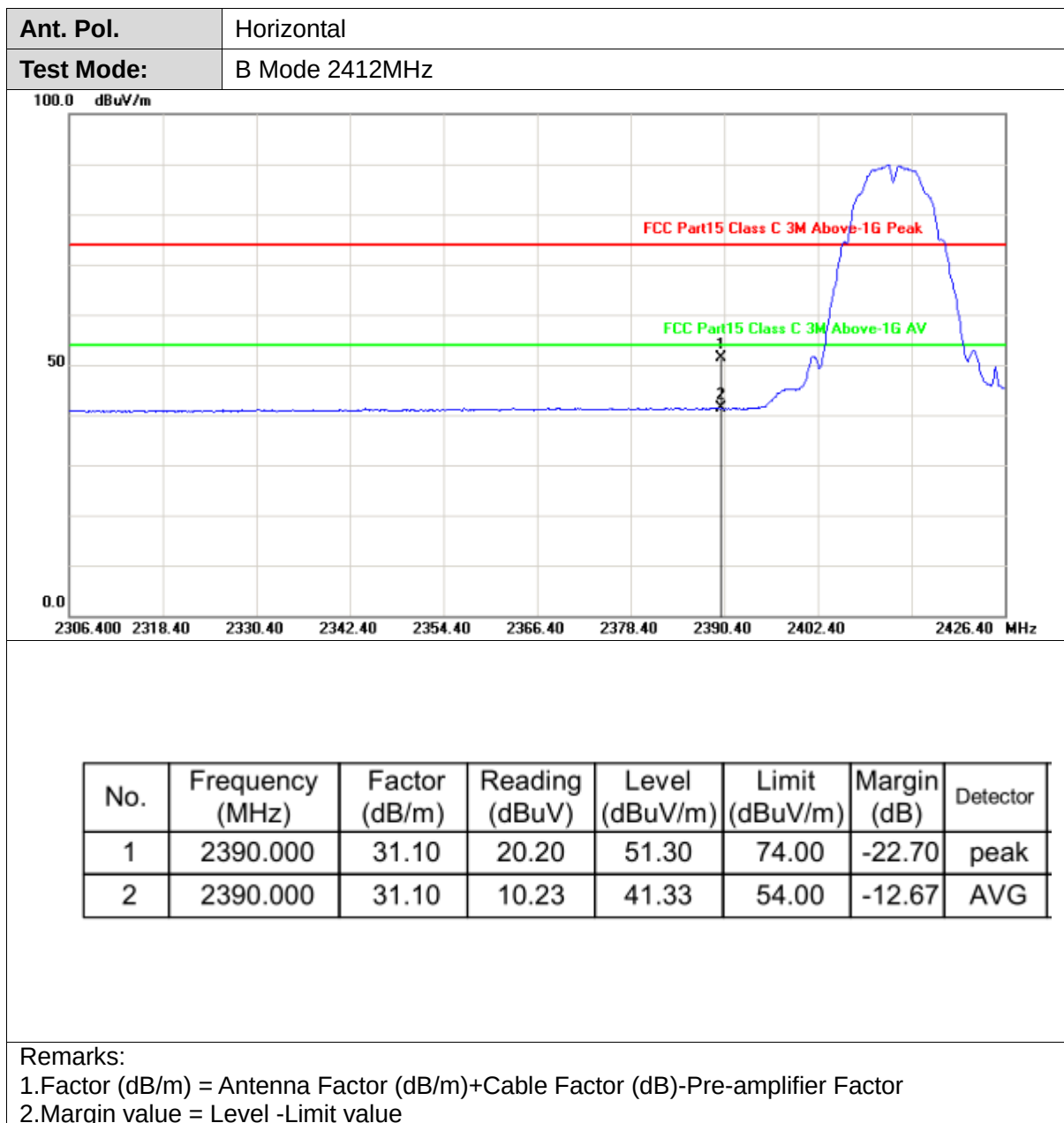
Test Procedure

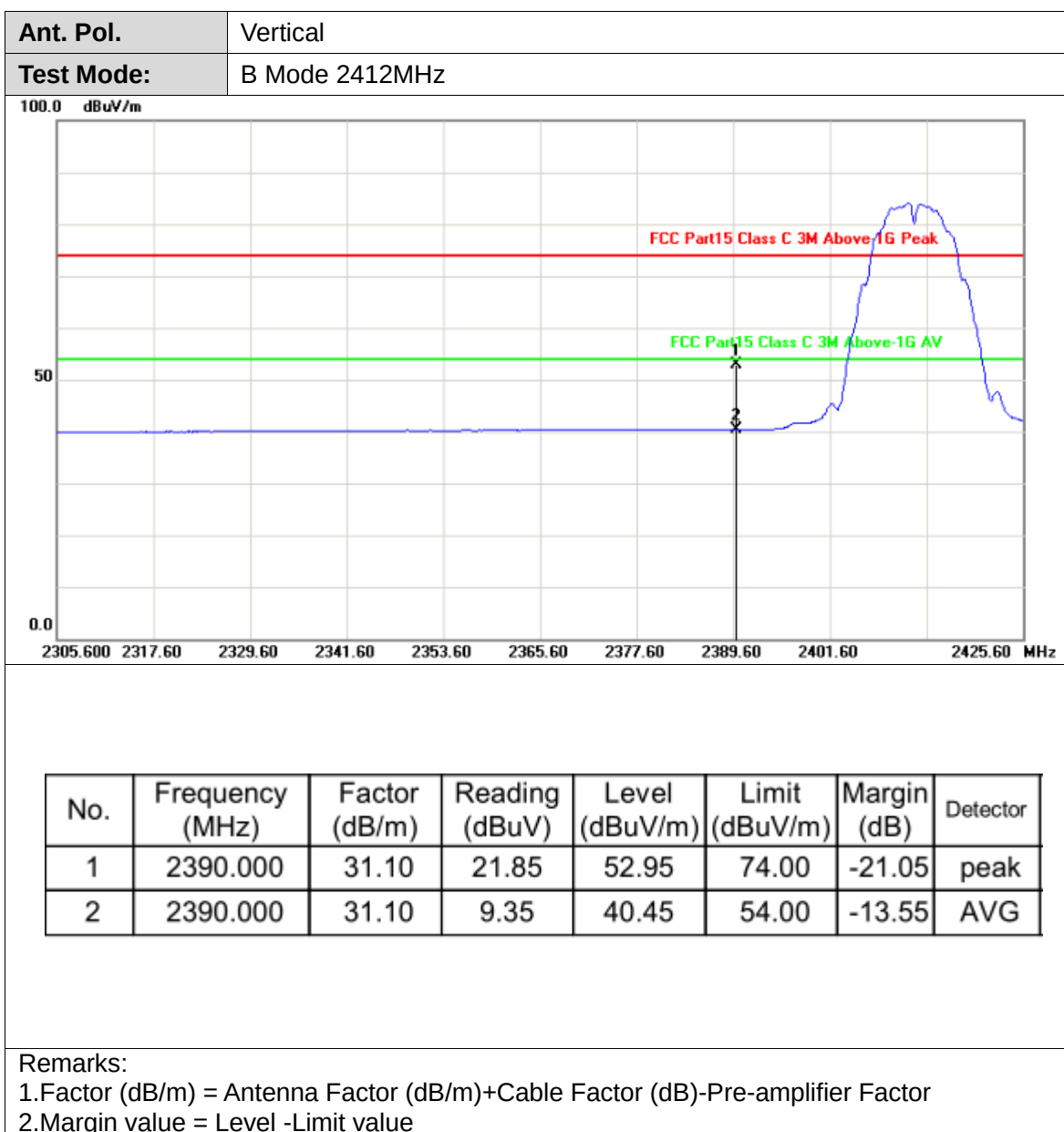
1. The EUT was setup and tested according to ANSI C63.10:2013 requirements.
2. The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
3. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
4. The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10:2013 on radiated measurement.
5. The receiver set as follow:
RBW=1MHz, VBW=3MHz PEAK detector for Peak value.
RBW=1MHz, VBW=10Hz with PEAK Detector for Average Value.

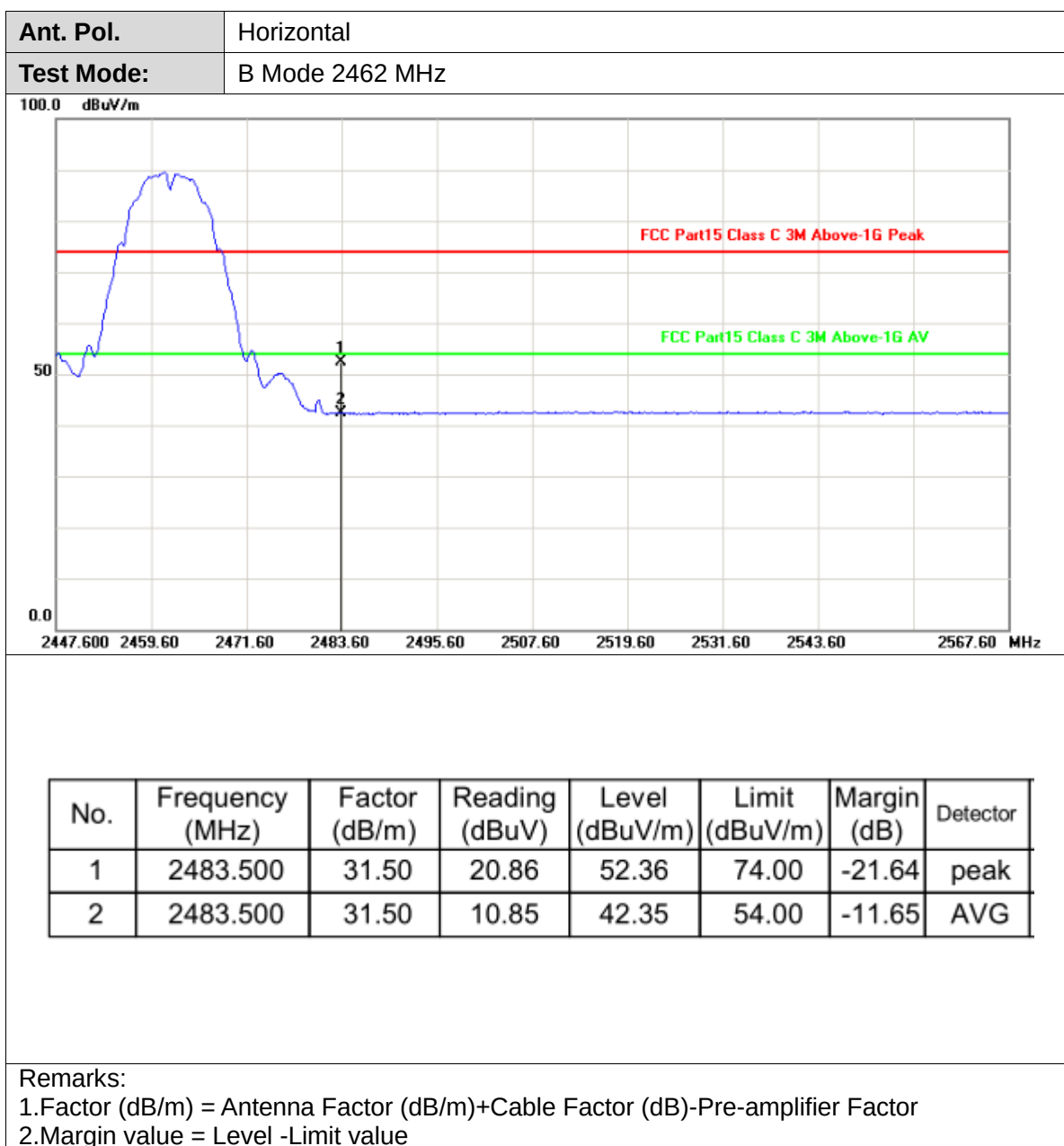
Test Mode

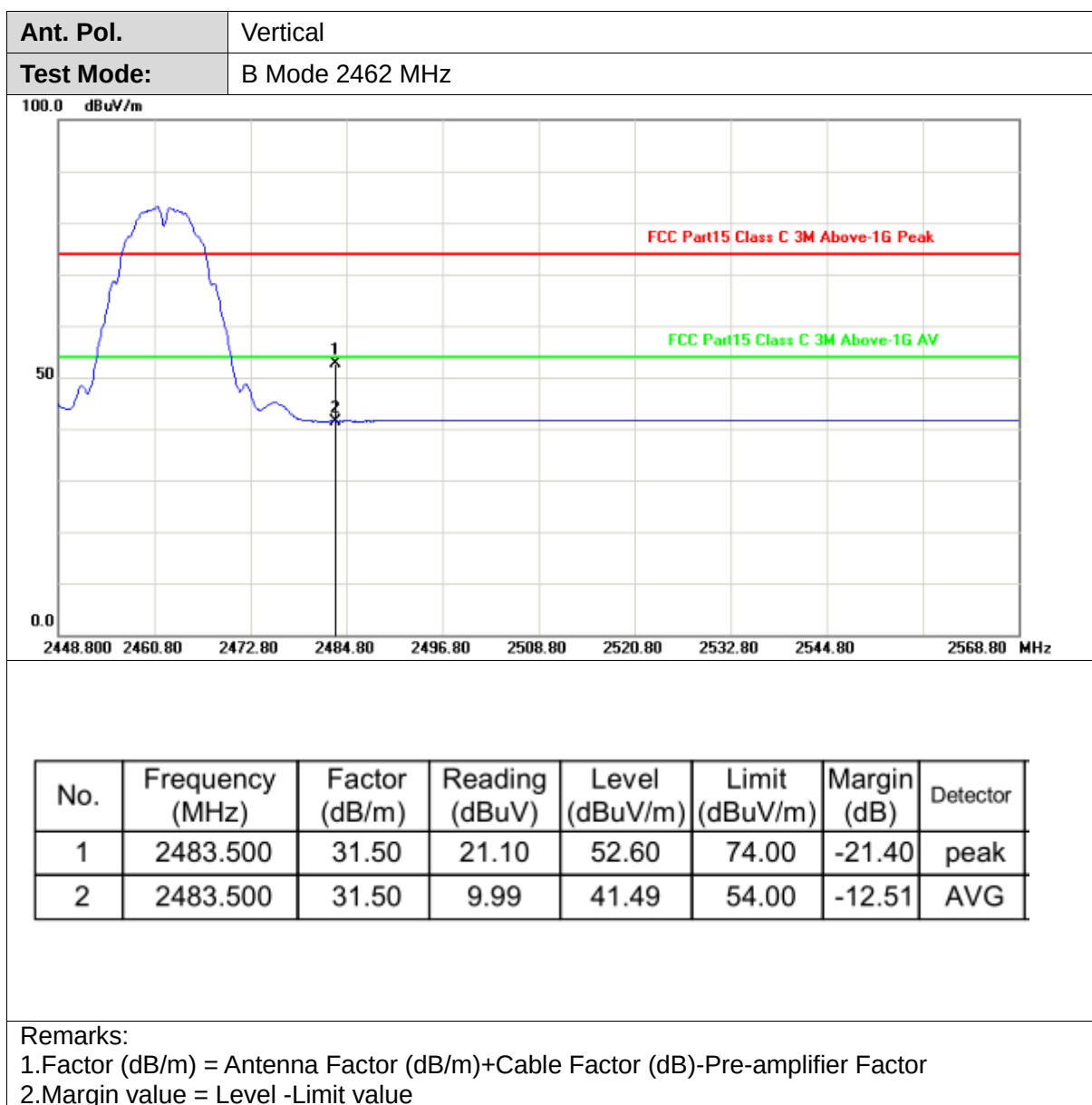
Please refer to the clause 2.3.

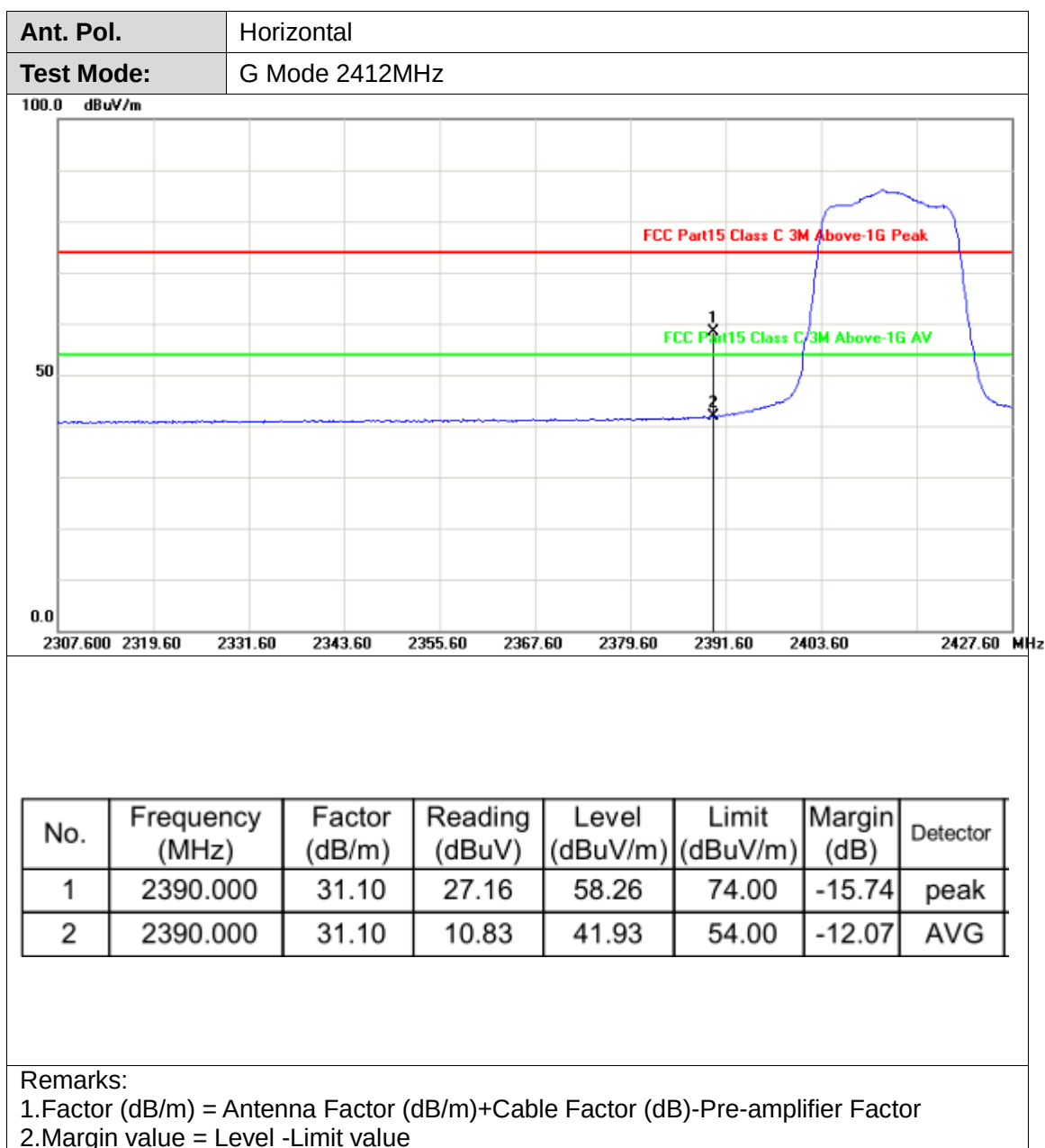
Test Results

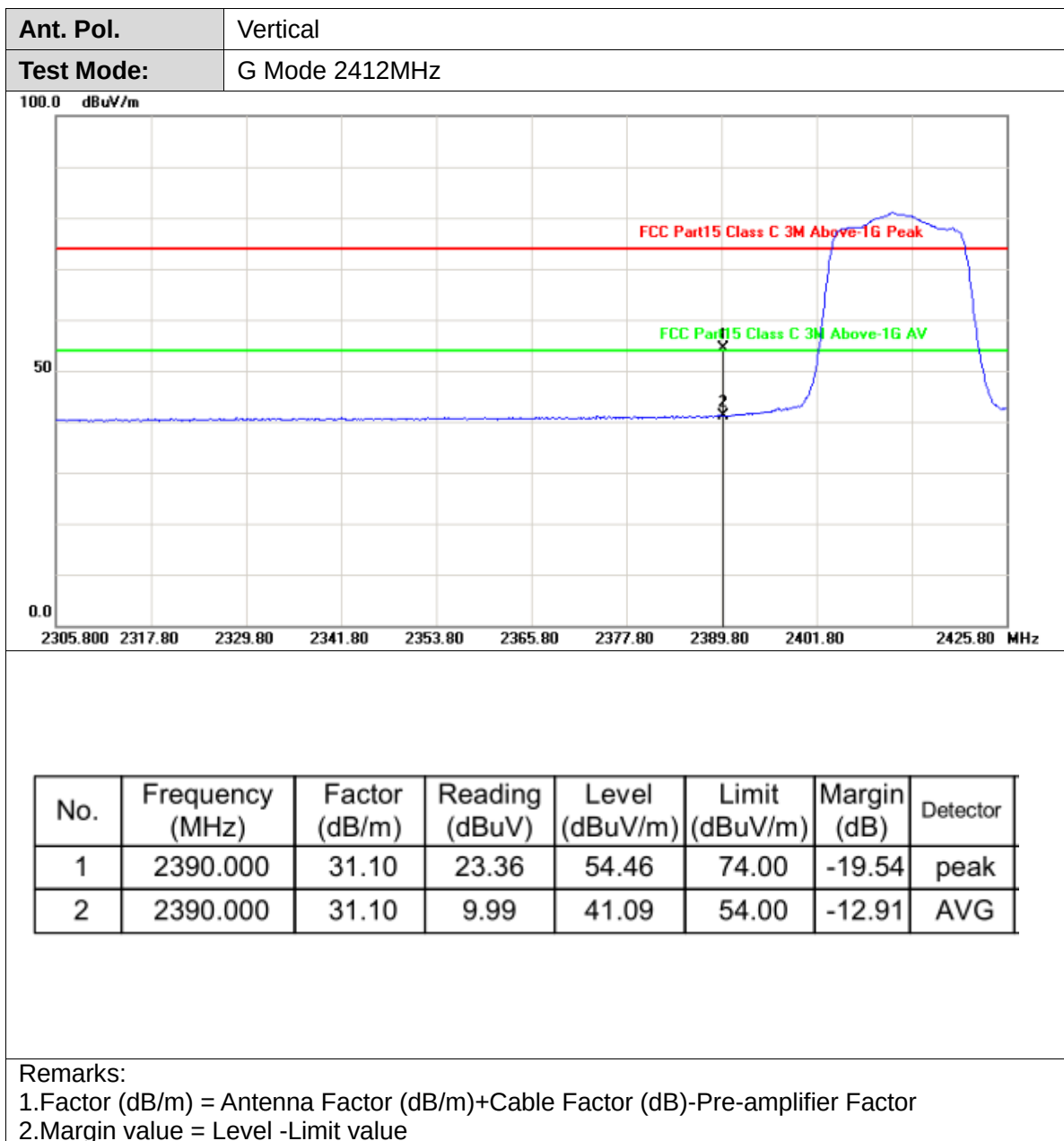


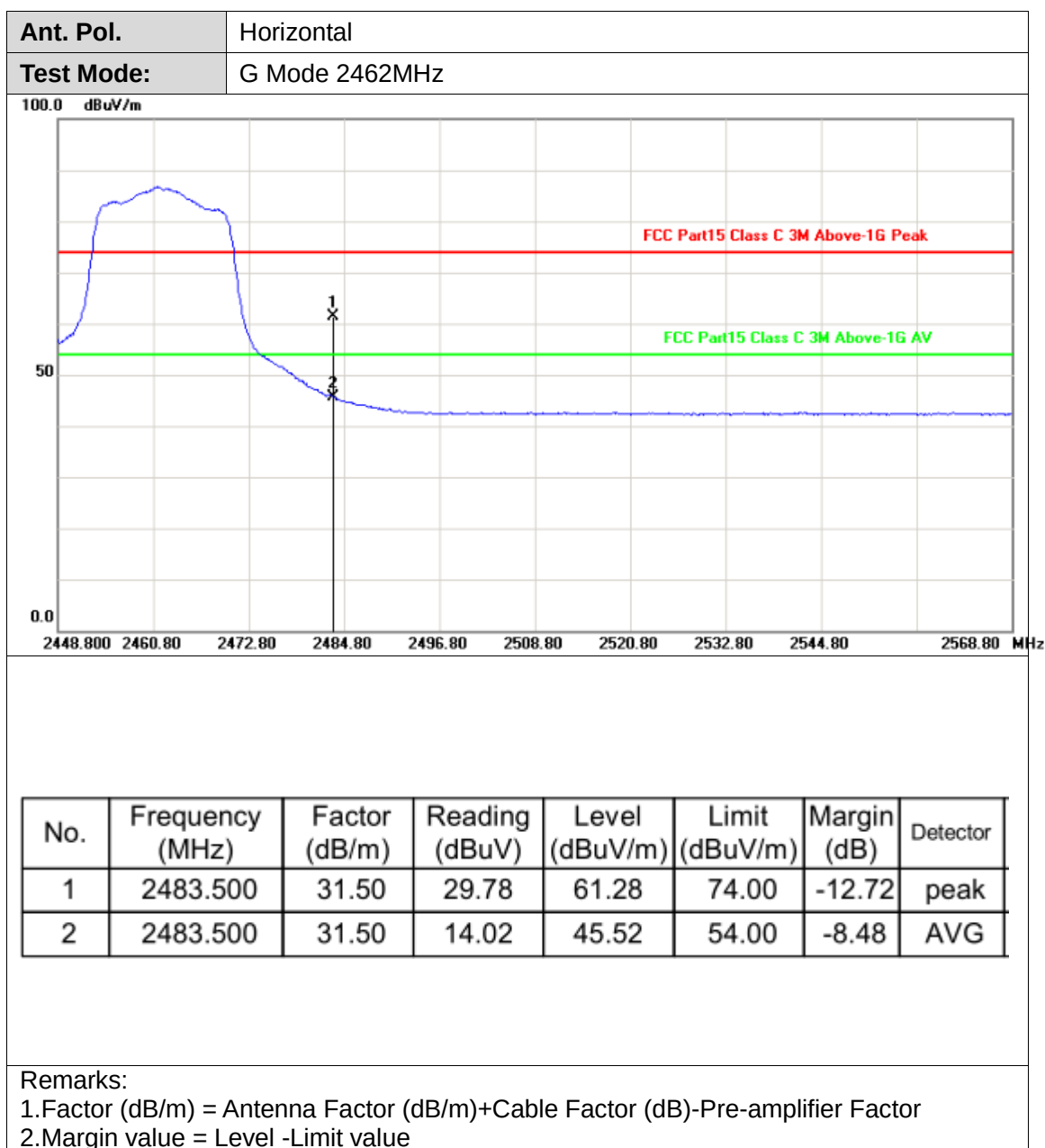


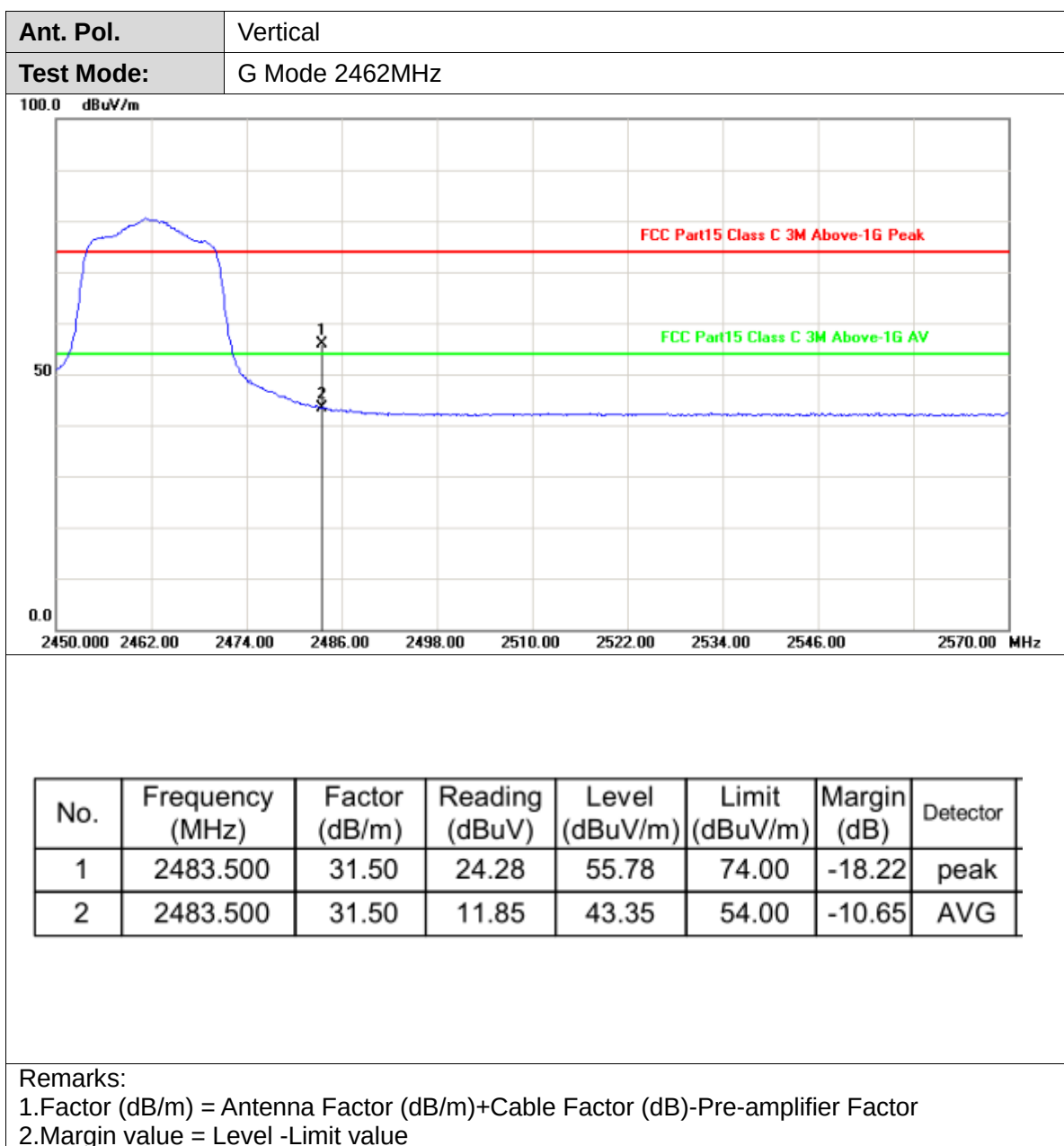


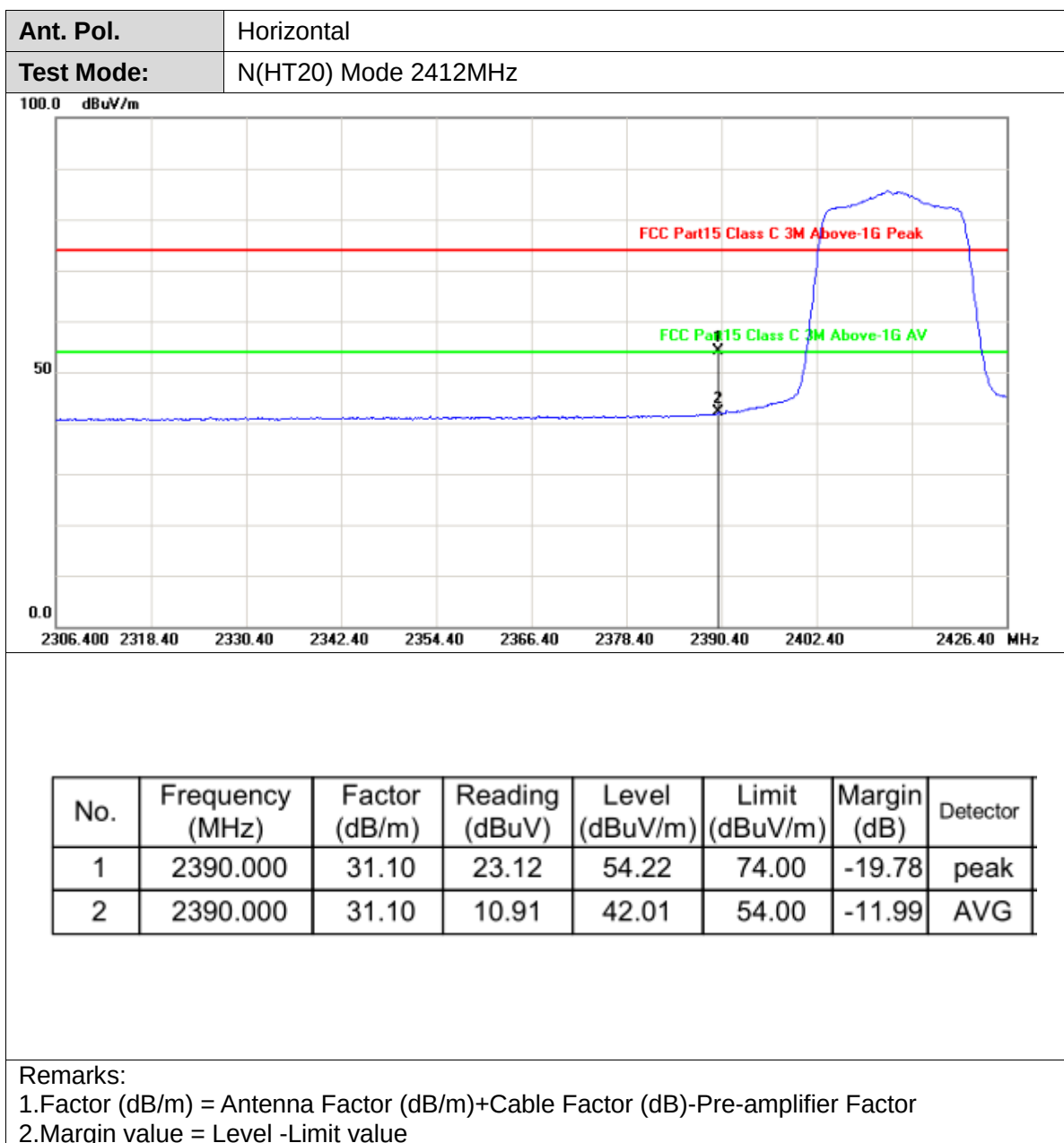


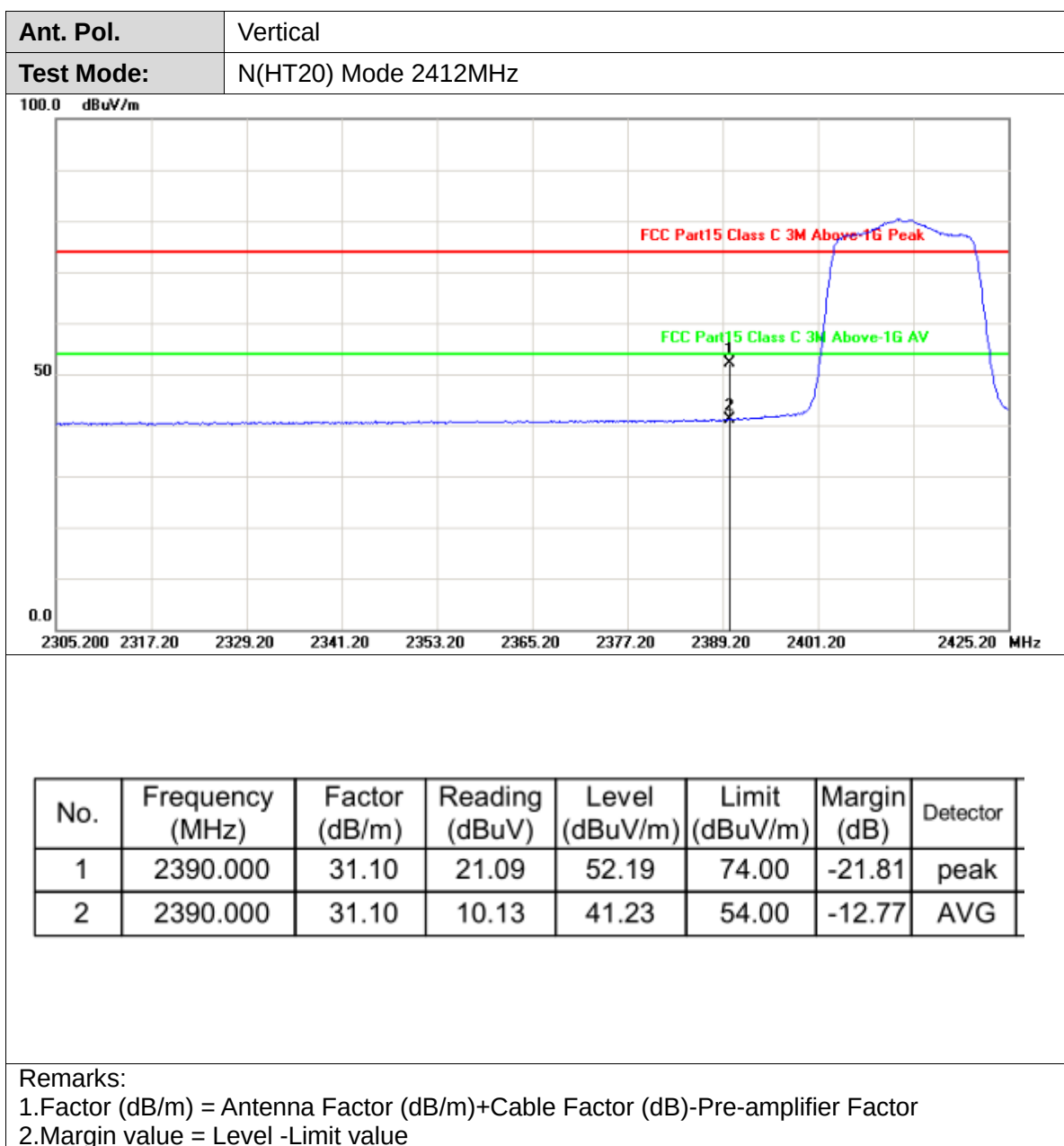


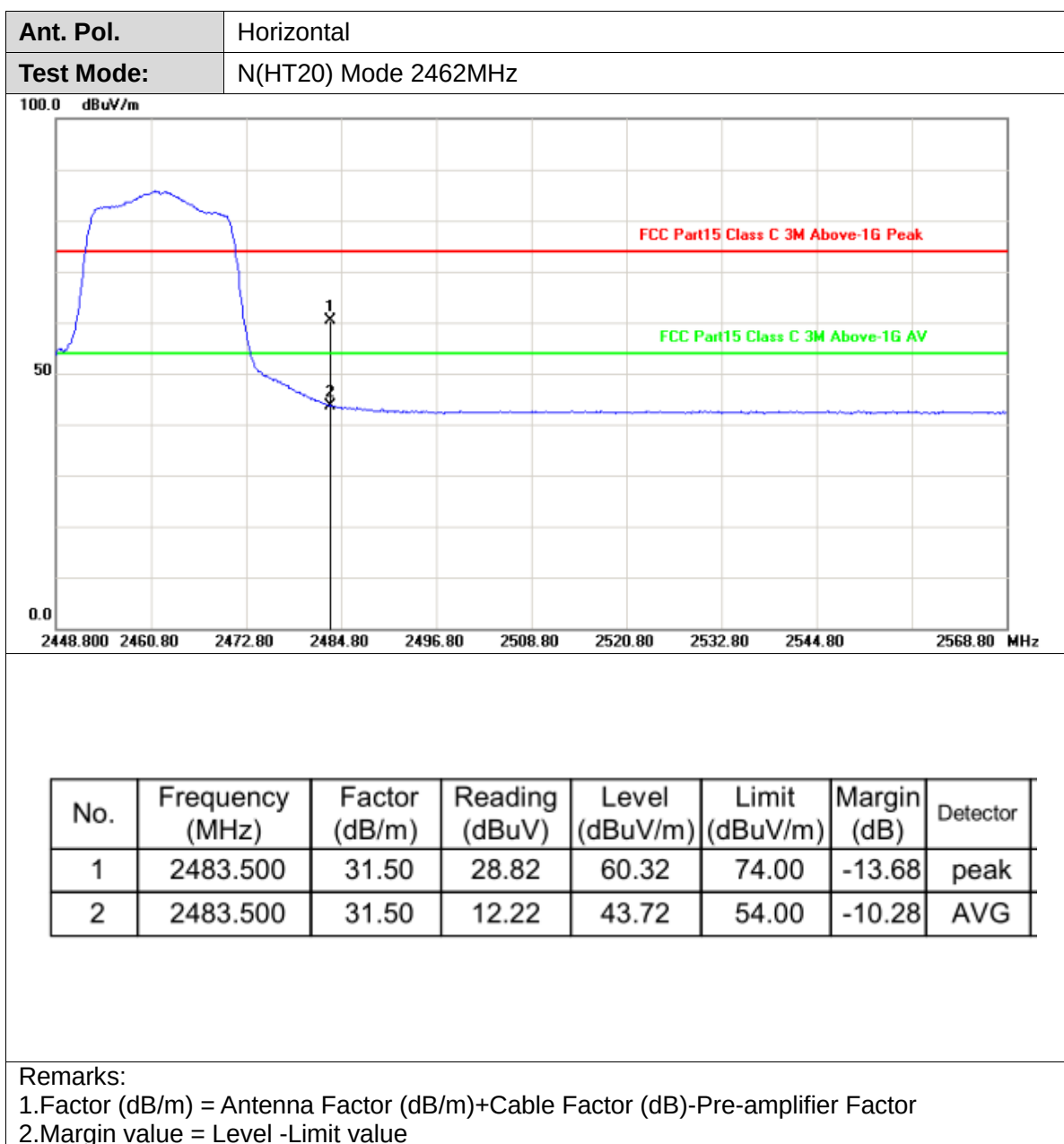


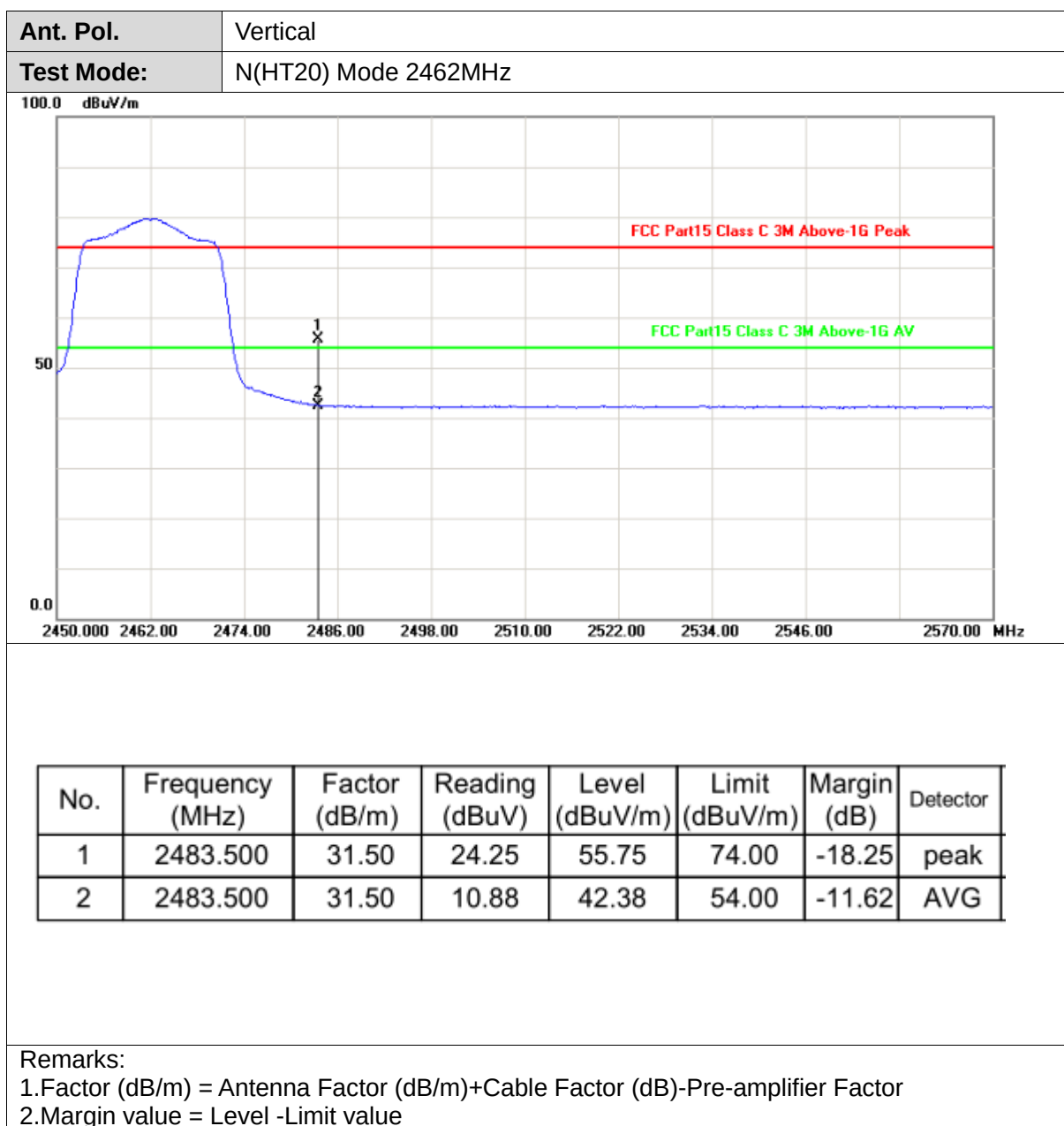






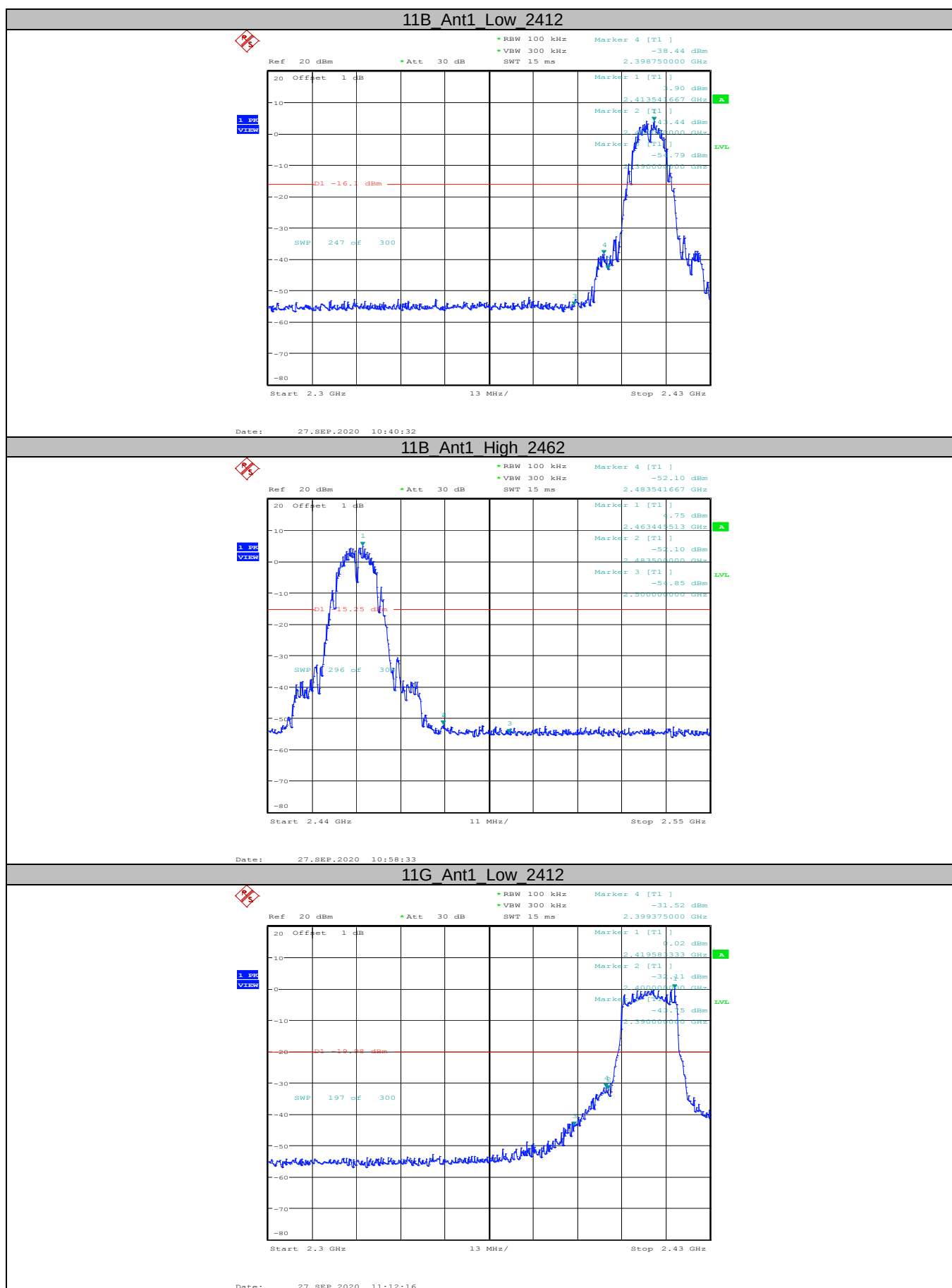








Conducted band edge data:



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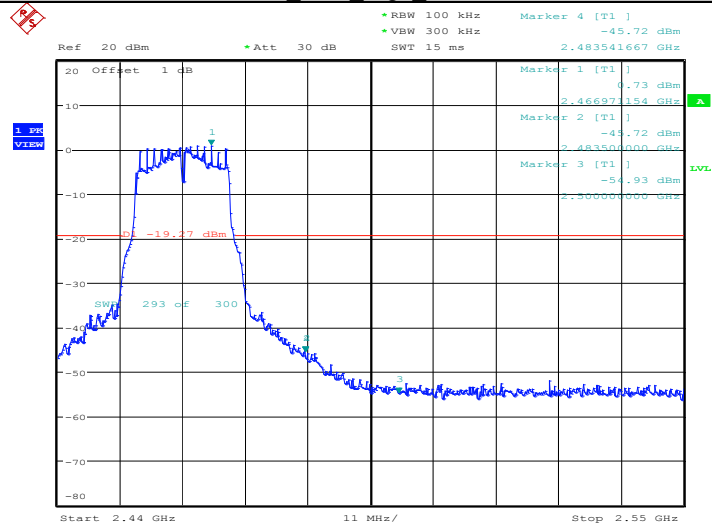
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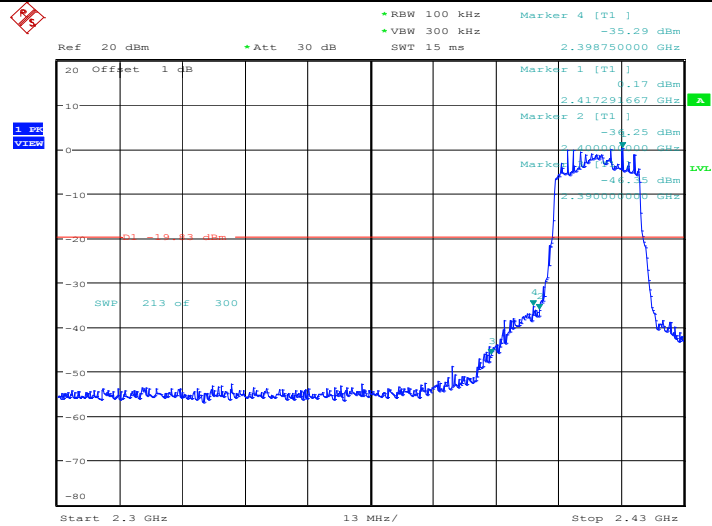


11G Ant1 High 2462



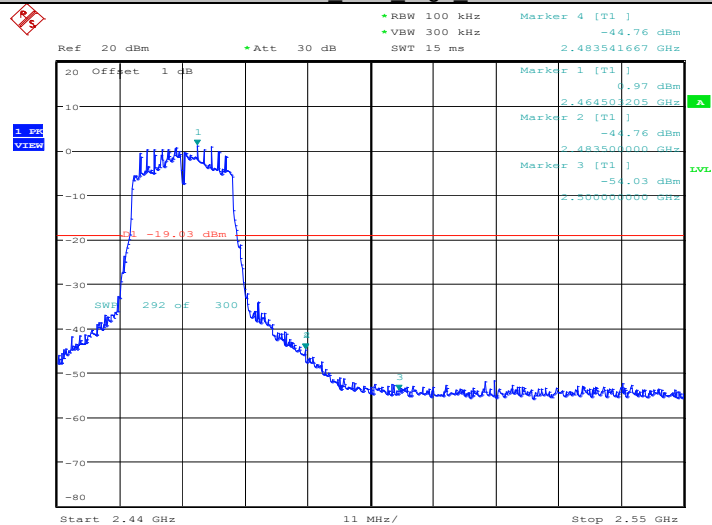
Date: 27.SEP.2020 11:49:27

11N20SISO Ant1 Low 2412



Date: 27.SEP.2020 11:55:29

11N20SISO Ant1 High 2462



Date: 27.SEP.2020 12:06:02

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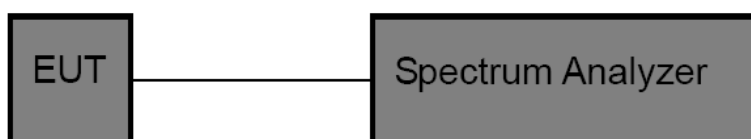
3.4. Bandwidth

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (a)(2)

Test Item	Limit	Frequency Range(MHz)
Bandwidth	≥ 500 KHz (6dB bandwidth)	2400~2483.5

Test Configuration



Test Procedure

1. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
2. DTS Spectrum Setting:
 - (1) Set RBW = 100 kHz.
 - (2) Set the video bandwidth (VBW) ≥ 3 RBW.
 - (3) Detector = Peak.
 - (4) Trace mode = Max hold.
 - (5) Sweep = Auto couple.OCB Spectrum Setting:
 - (1) Set RBW = 1% ~ 5% occupied bandwidth.
 - (2) Set the video bandwidth (VBW) ≥ 3 RBW.
 - (3) Detector = Peak.
 - (4) Trace mode = Max hold.
 - (5) Sweep = Auto couple.

NOTE: The EUT was set to continuously transmitting in each mode and low, Middle and high channel for the test.

Test Mode

Please refer to the clause 2.3.

Test Results

Please see the Appendix A1, A2.



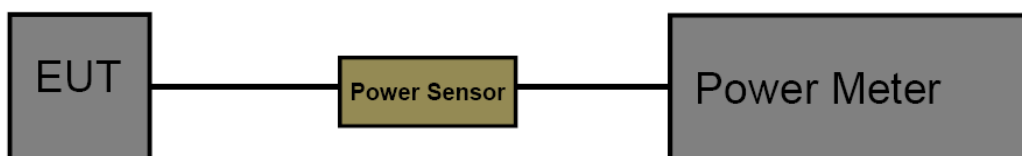
3.5. Peak Output Power

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (b)(3)

Section	Test Item	Limit	Frequency Range(MHz)
CFR 47 FCC 15.247(b)(3)	Maximum conducted output power	1 Watt or 30dBm	2400~2483.5

Test Configuration



Test Procedure

1. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
2. Spectrum Setting:
Peak Detector: $RBW \geq DTS \text{ Bandwidth}$, $VBW \geq 3 * RBW$.
Sweep time=Auto.
Detector=Peak.
Trace mode=Maxhold.
Allow trace to fully stabilize. Then use the peak marker function to determine the maximum amplitude level.

Test Mode

Please refer to the clause 2.3

Test Result



TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	15.45	<=30	PASS
		2437	15.80	<=30	PASS
		2462	16.13	<=30	PASS
11G	Ant1	2412	19.40	<=30	PASS
		2437	19.69	<=30	PASS
		2462	20.24	<=30	PASS
11N20SISO	Ant1	2412	18.98	<=30	PASS
		2437	19.23	<=30	PASS
		2462	19.48	<=30	PASS

Note: Test results increased RF cable loss by 0.5dB.



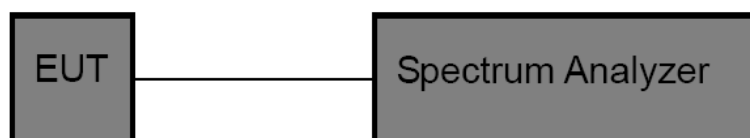
3.6. Power Spectral Density

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (e)

Test Item	Limit	Frequency Range(MHz)
Power Spectral Density	8dBm(in any 3 kHz)	2400~2483.5

Test Configuration



Test Procedure

1. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
2. The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above. The measurement according to section 10.2 of KDB 558074 D01 DTS Meas Guidance v05r02.
3. Spectrum Setting:
Set analyzer center frequency to DTS channel center frequency.
Set the span to 1.5 times the DTS bandwidth.
Set the RBW to: 3 kHz
Set the VBW to: 10 kHz
Detector: peak
Sweep time: auto
Allow trace to fully stabilize. Then use the peak marker function to determine the maximum amplitude level.

Test Mode

Please refer to the clause 2.3

Test Result

Please see the Appendix B.



3.7. Antenna requirement

Requirement

FCC CFR Title 47 Part 15 Subpart C Section 15.203:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

FCC CFR Title 47 Part 15 Subpart C Section 15.247(c) (1)(i):

(i) Systems operating in the 2400~2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

Test Result

The directional gain of the antenna less than 6dBi, please refer to the EUT internal photographs antenna photo.



4. LABEL AND LABEL LOCATION

Please reference to the photo report No.:Appendix I



5.EUT TEST PHOTOS

Please reference to the photo report No.:Appendix II



6. PHOTOGRAPHS OF EUT CONSTRUCTIONAL

Please reference to the photo report No.: Appendix III and Appendix IV



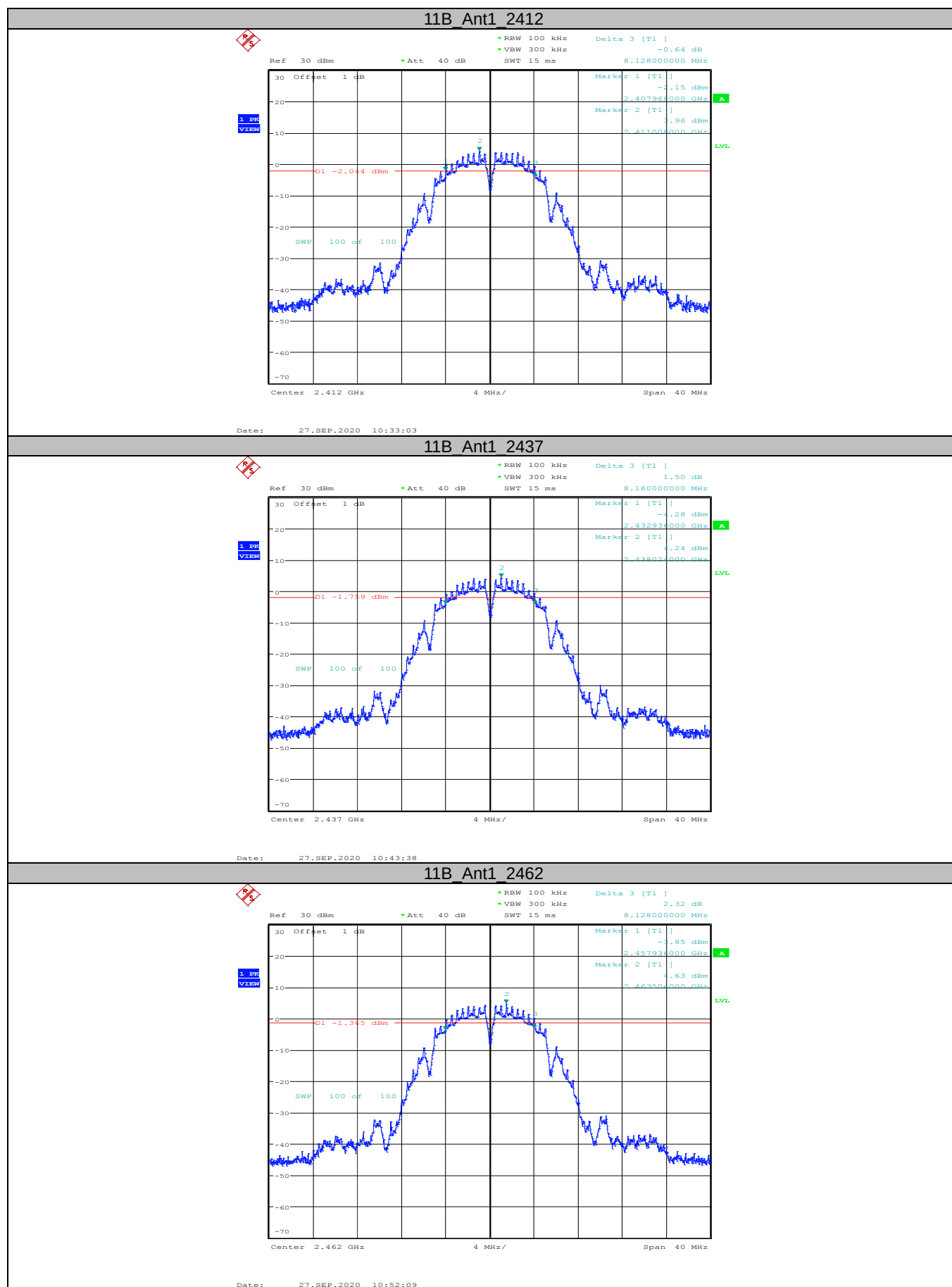
Appendix A1: DTS Bandwidth

Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	8.128	2407.968	2416.096	≥ 0.5	PASS
		2437	8.160	2432.936	2441.096	≥ 0.5	PASS
		2462	8.128	2457.936	2466.064	≥ 0.5	PASS
11G	Ant1	2412	16.352	2403.840	2420.192	≥ 0.5	PASS
		2437	15.968	2429.224	2445.192	≥ 0.5	PASS
		2462	15.808	2454.128	2469.936	≥ 0.5	PASS
11N20SISO	Ant1	2412	17.216	2403.584	2420.800	≥ 0.5	PASS
		2437	17.184	2428.616	2445.800	≥ 0.5	PASS
		2462	15.776	2454.416	2470.192	≥ 0.5	PASS



Test Graphs



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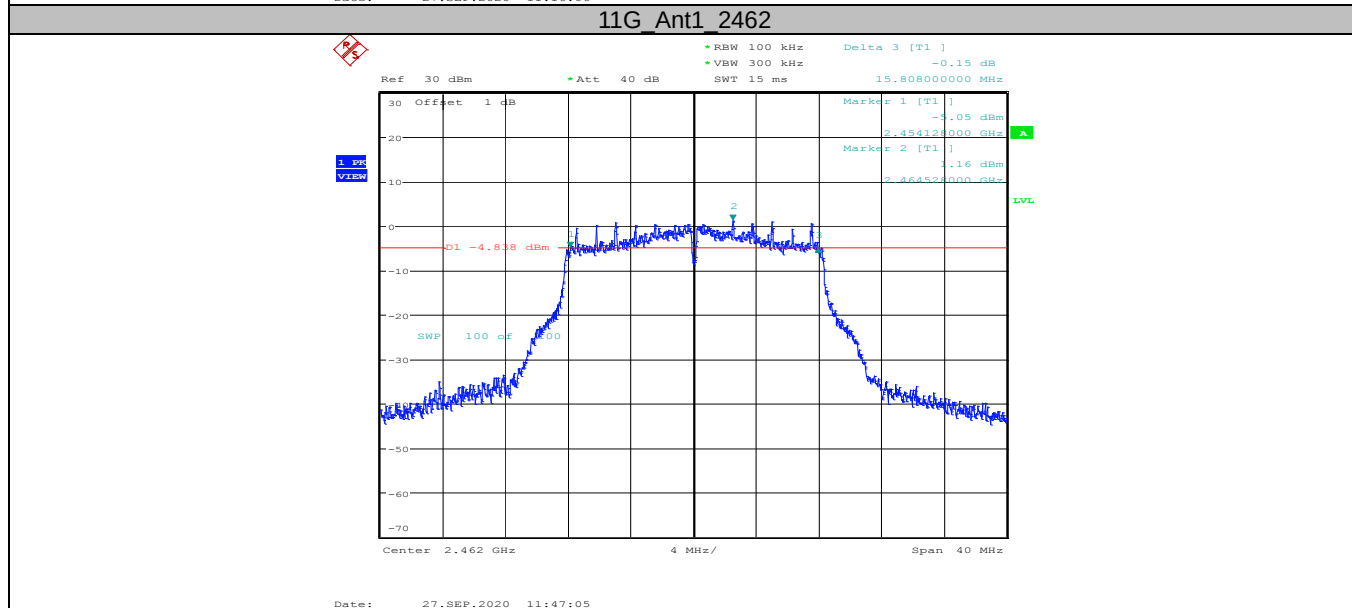
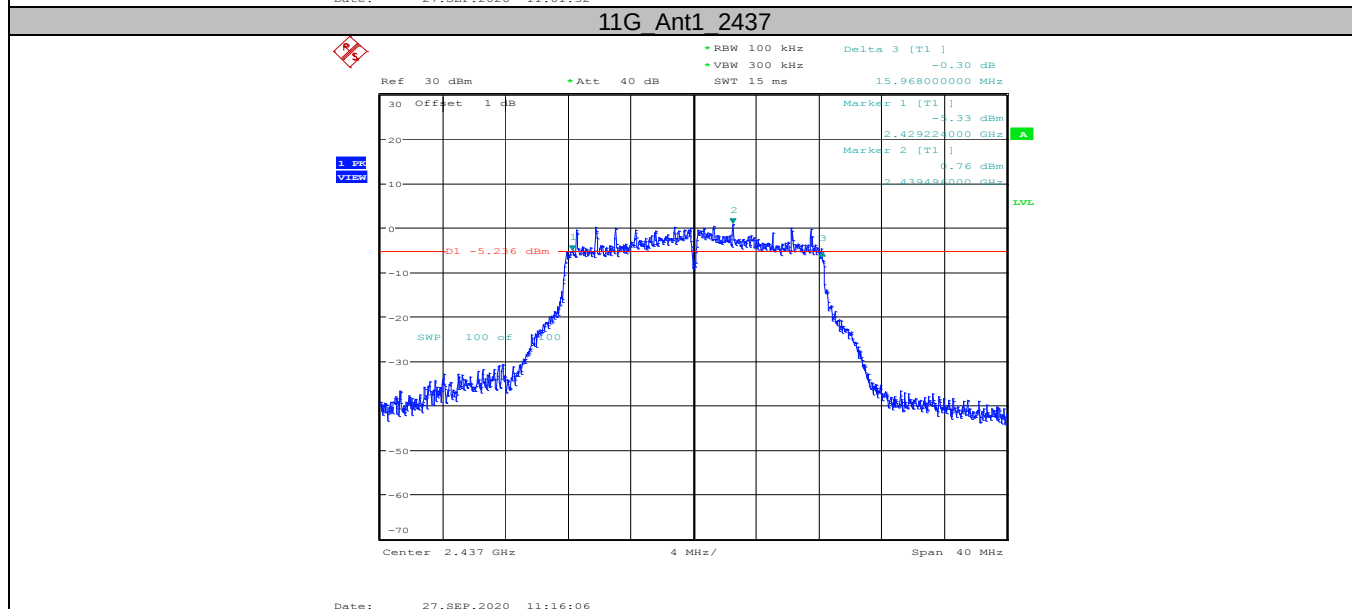
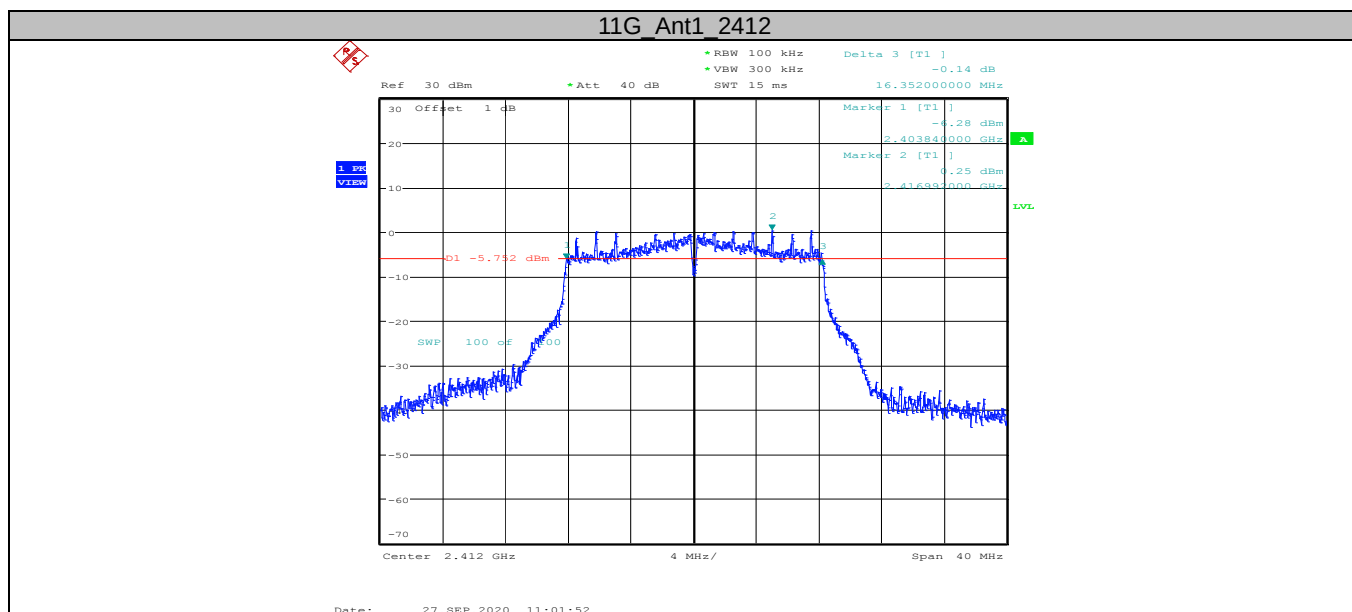
1-2/F., Building 2, Jiaquan Building, Guanlan High-Tech Park, Shenzhen, Guangdong, China

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Fax: (86)755-27521011

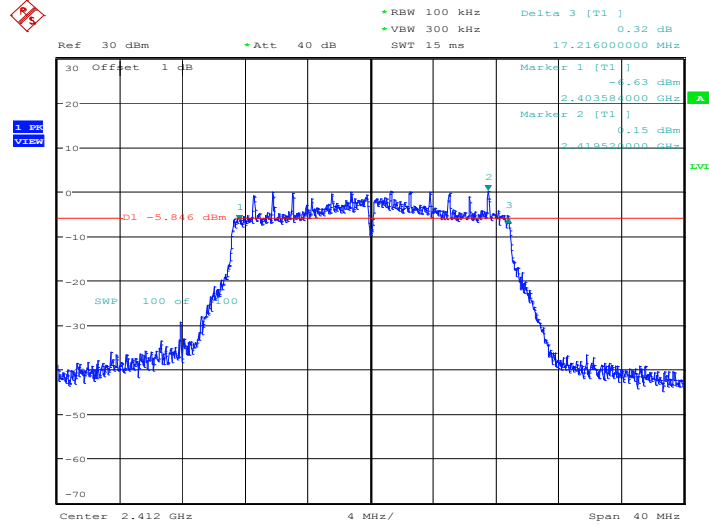
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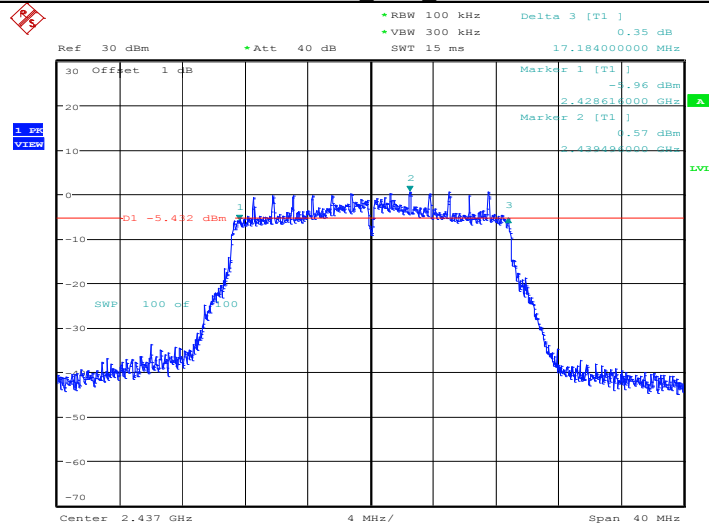


11N20SISO Ant1 2412



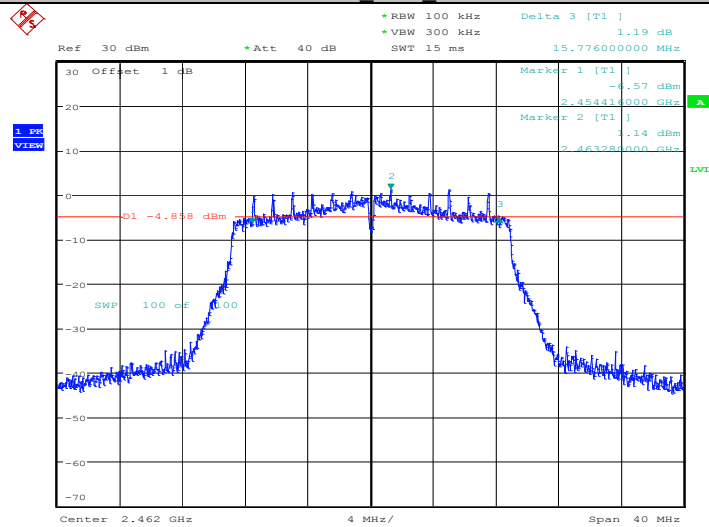
Date: 27.SEP.2020 11:53:07

11N20SISO Ant1 2437



Date: 27.SEP.2020 11:59:13

11N20SISO Ant1 2462



Date: 27.SEP.2020 12:03:40

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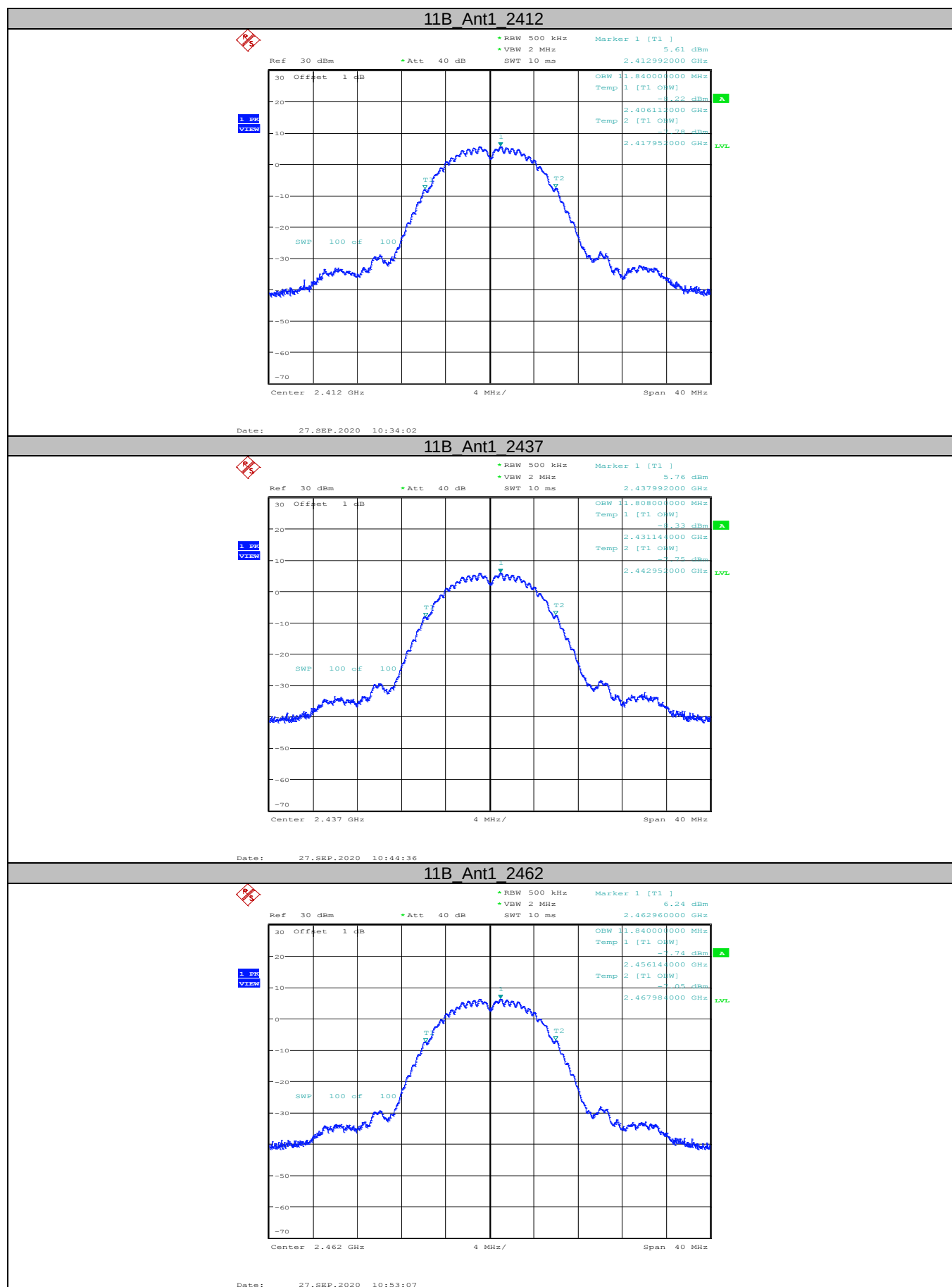
Appendix A2: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel	OCB [MHz]	Verdict
11B	Ant1	2412	11.84	PASS
		2437	11.808	PASS
		2462	11.84	PASS
11G	Ant1	2412	17.632	PASS
		2437	17.632	PASS
		2462	17.376	PASS
11N20SISO	Ant1	2412	18.56	PASS
		2437	18.592	PASS
		2462	18.368	PASS



Test Graphs



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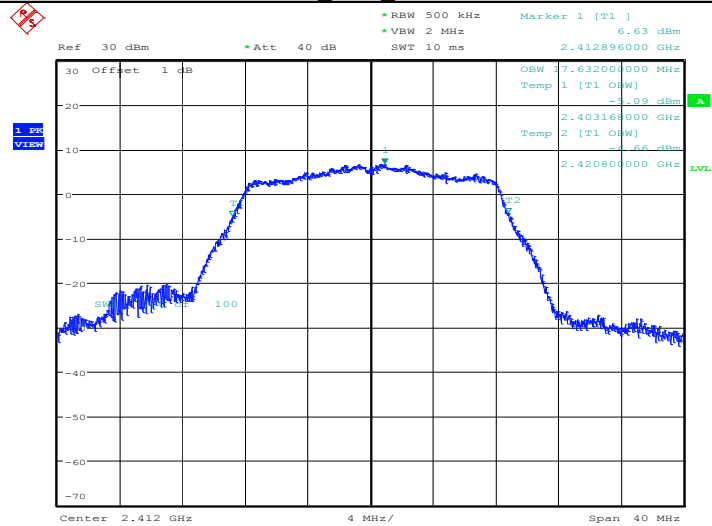
Fax: (86)755-27521011

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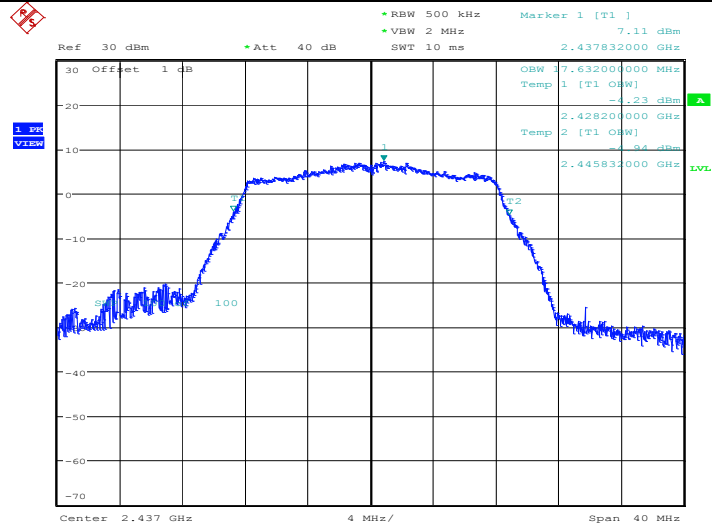


11G_Ant1_2412



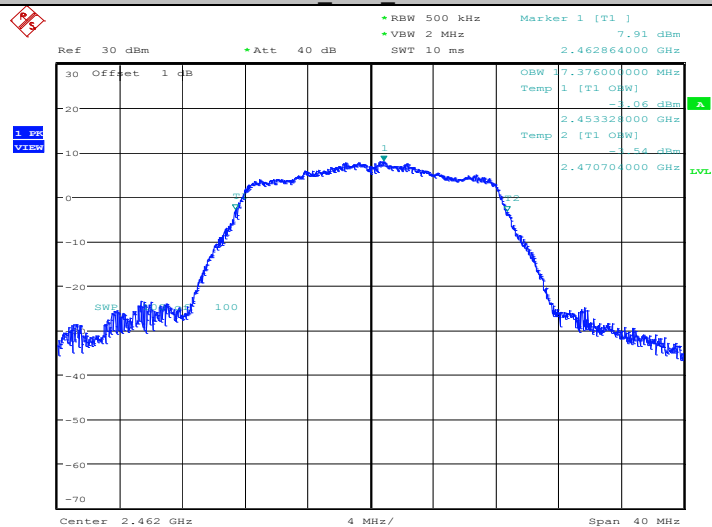
Date: 27.SEP.2020 11:02:50

11G_Ant1_2437



Date: 27.SEP.2020 11:17:03

11G_Ant1_2462



Date: 27.SEP.2020 11:48:03

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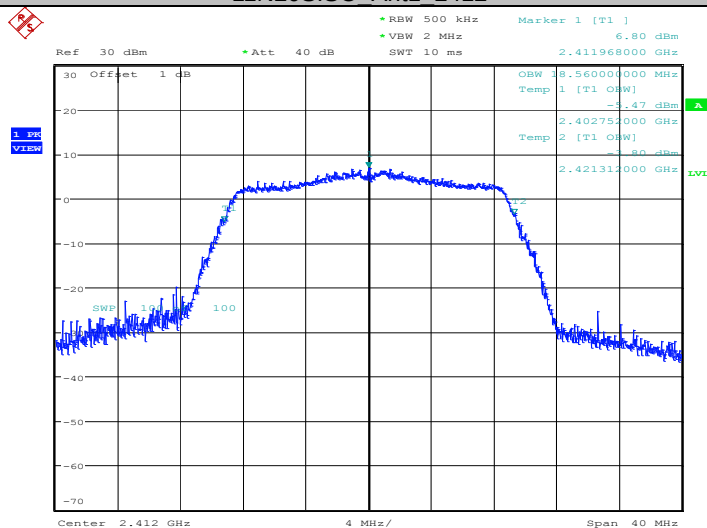
Fax: (86)755-27521011

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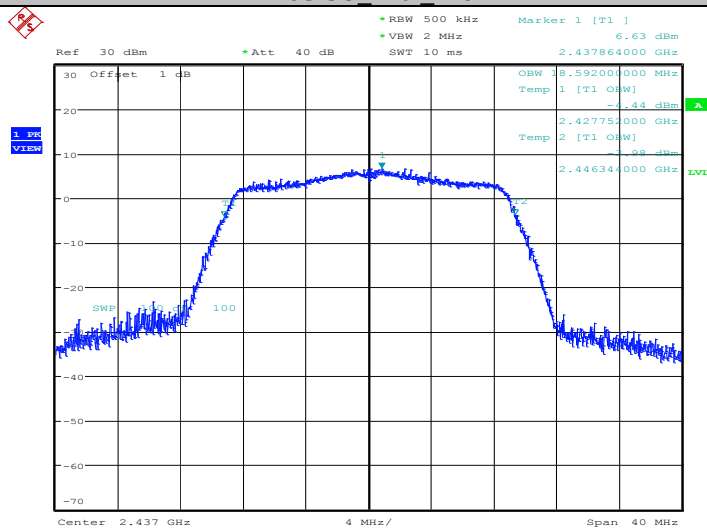


11N20SISO Ant1 2412



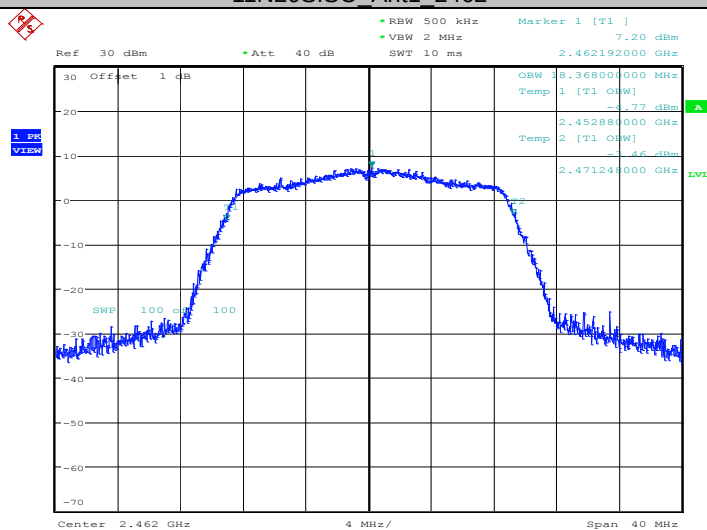
Date: 27.SEP.2020 11:54:05

11N20SISO Ant1 2437



Date: 27.SEP.2020 12:00:11

11N20SISO Ant1 2462



Date: 27.SEP.2020 12:04:37

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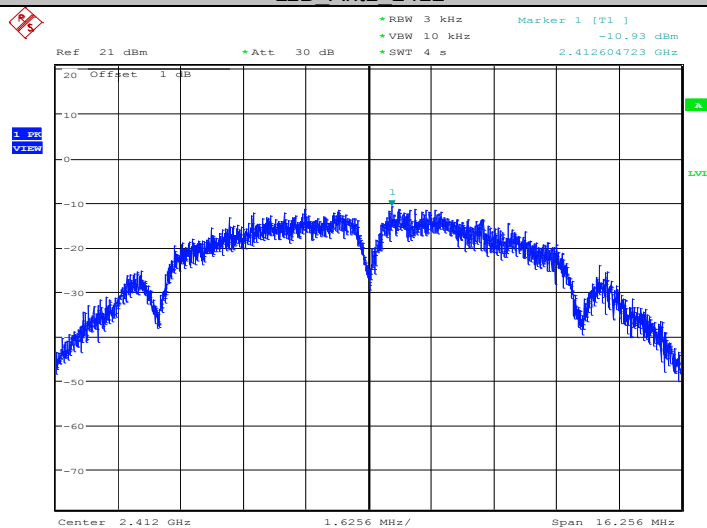


Appendix B: Power Spectral Density

Test Mode	Antenna	Channel	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11B	Ant1	2412	-10.93	<=8	PASS
		2437	-10.23	<=8	PASS
		2462	-9.86	<=8	PASS
11G	Ant1	2412	-13.25	<=8	PASS
		2437	-12.05	<=8	PASS
		2462	-12.01	<=8	PASS
11N20SISO	Ant1	2412	-13.29	<=8	PASS
		2437	-13.18	<=8	PASS
		2462	-12.41	<=8	PASS

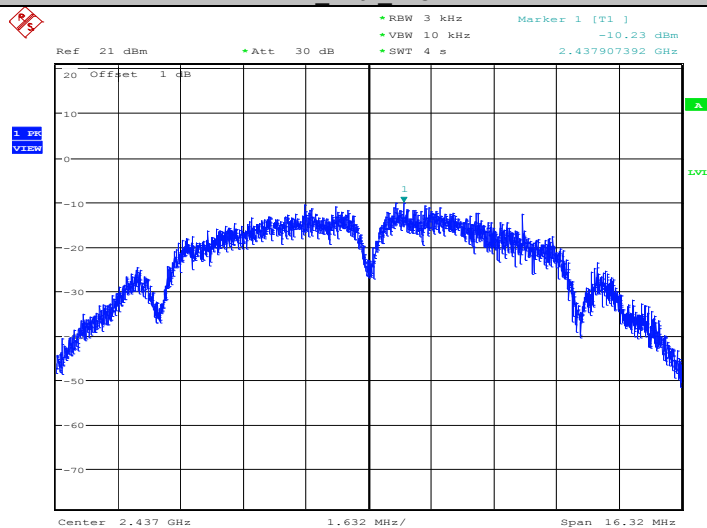


11B_Ant1_2412



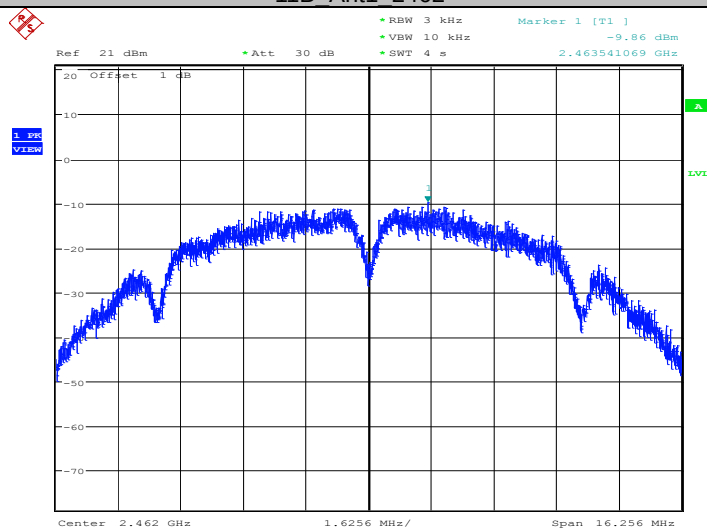
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Date: 27.SEP.2020 11:42:23

11B_Ant1_2462



Date: 27.SEP.2020 11:42:46

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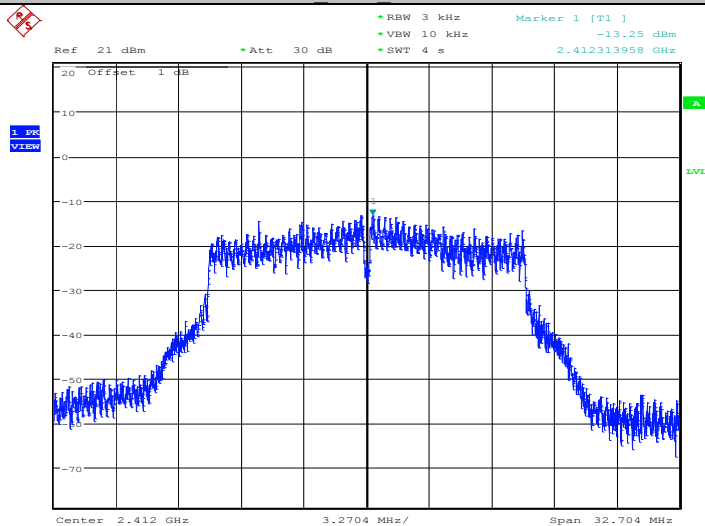
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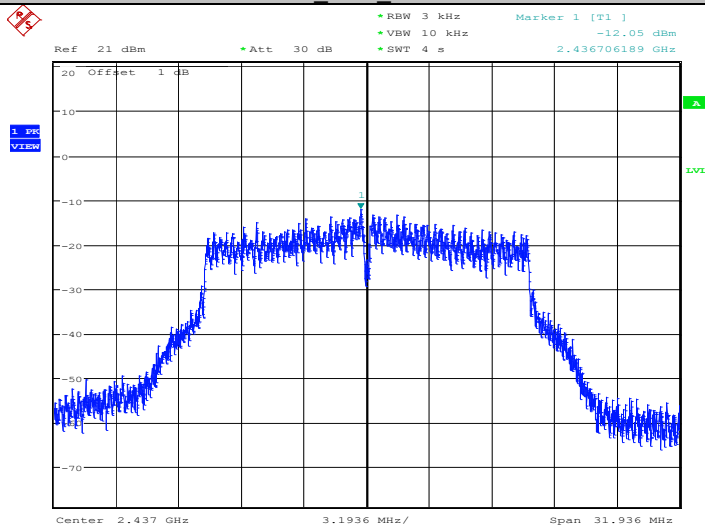


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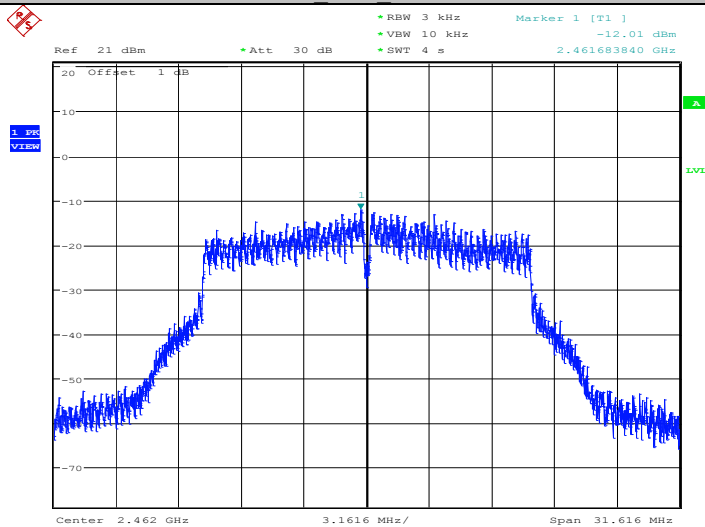
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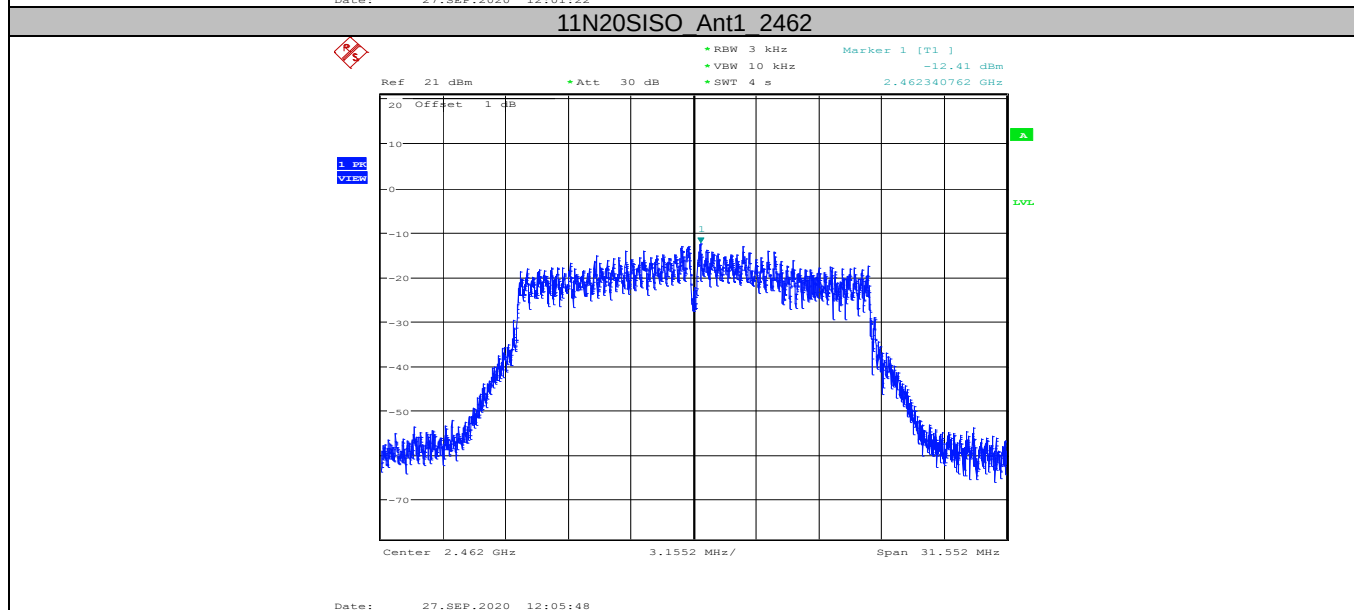
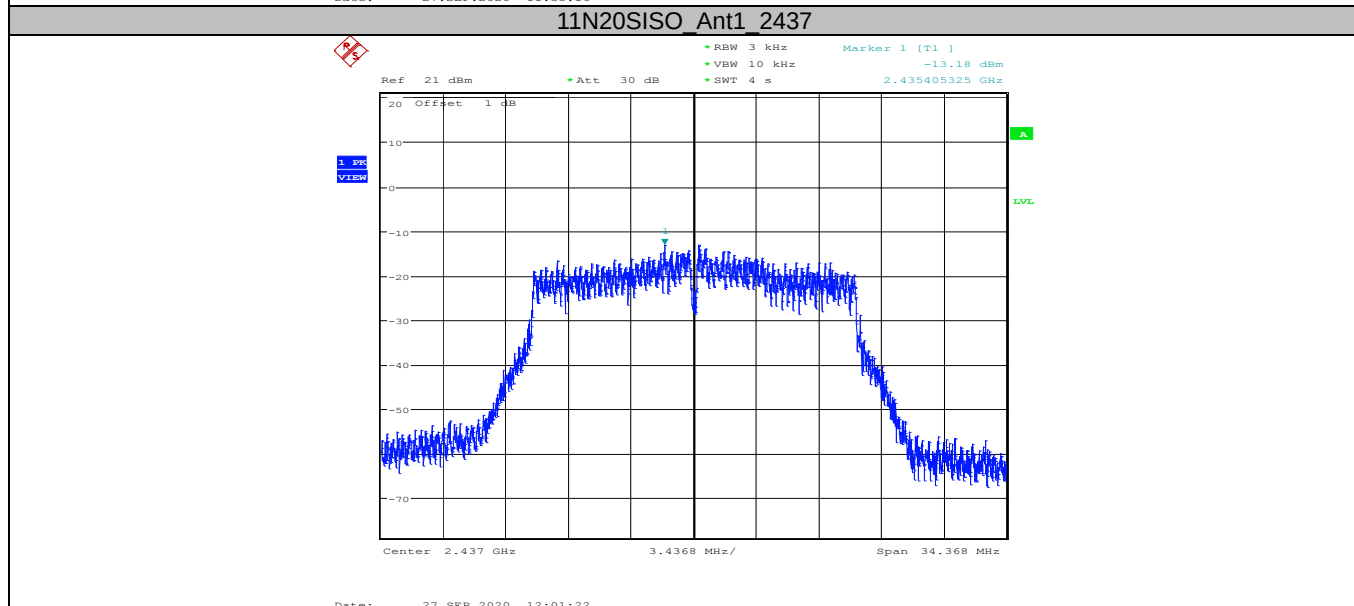
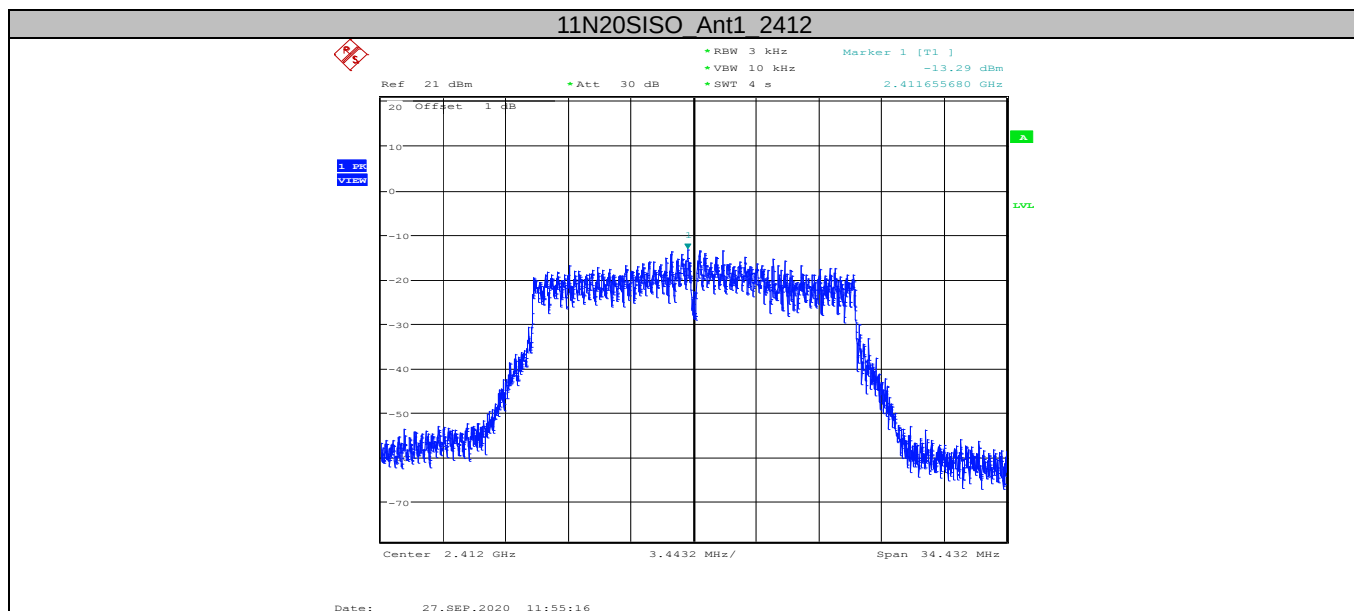
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*****THE END*****

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